A balanced examination of inter-role conflict

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A BALANCED EXAMINATION OF INTER-ROLE CONFLICT

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INTER-ROLE CONFLICT

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Helen Pluut

geboren op 4 februari 1988 te Gouda

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	dr. M.C.W. Peeters

A WORD OF THANKS

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I want to end by thanking the people closest to me. A loving atmosphere in your home is the foundation for your life — Dalai Lama. So thank you to my dear family, who bring me so much happiness. And of course my dearest, Jaap. Thank you for being you. I love you.

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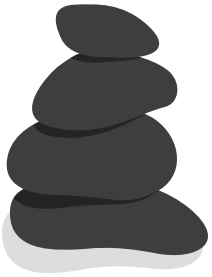
CHAPTER 1

Introduction



1.1 Setting the Stage

Throughout our lives, we get involved in school, sports activities, work, family life, and social events, just to name a few. The reason for people to engage in a multitude of social contexts seems to be grounded in the strong belief that the achievement of multiple roles may enhance individual well-being. This view is perhaps most prominent in the changing role of women in Western society. Nowadays, women are expected to not only contribute to family life emotionally but to also engage in paid work and contribute economically. Data from the 2008 National Study of the Changing Workforce (Galinsky, Aumann, & Bond, 2009) showed that women's labour force participation has increased substantially over the past few decades, and subsequently we have witnessed a steady rise in dual-earner couples (Masterson & Hoobler, 2015). Western societies encourage involvement in both work and family matters as well as personal interests because social roles enrich lives through the enhancement of interpersonal skills, emotional support, self-esteem, and life satisfaction (Nordenmark, 2004).

Nevertheless, the physical and psychological health of the workforce is declining (Galinsky et al., 2009), with almost one in eight people suffering from burnout symptoms in the Netherlands (Statistics Netherlands, 2014). One of the main reasons for the prevalence of stress in today's society is being overly engaged in too many life domains. We "do it all in order to have it all" (Aumann, Galinsky, & Matos, 2011) because we find satisfaction and fulfilment in each domain. Notwithstanding the psychological benefits of multiple roles, such variety can also be burdensome. Juggling social roles in multiple domains can become overly demanding and stressful, and that is when individuals experience what Goode (1960) termed 'role strain'. It reflects a situation in which the total set of social roles becomes excessively taxing to an individual in such a way that his or her psychological well-being is affected.

In order to better understand why a multitude of social roles would pose a risk for our psychological well-being, it helps to think of personal resources as a battery (see the "scarcity" approach in Marks, 1977). Ideally, we start the day fresh with a fully charged battery, consisting of time, energy, and attention. But such resources are finite, and the demands associated with multiple roles become a drain on our resources. For instance, we have to complete our tasks at work at a high pace or we have to meet a deadline, and then we get home and we have to attend to family matters. At the end of the day, the battery is likely to be used up to a large extent.

This resource drain underlies interference between domains (Edwards & Rothbard, 2000) such that participation in one makes it more difficult to participate in another. That is when individuals experience inter-role conflict, which is the general focus of this dissertation.

The current dissertation examines the interplay between different domains, assuming that demands and pressures from multiple roles may collide such that excessive demands from one domain impair outcomes in another domain. Chapters 2 and 3 centre on how demands in one's workday influence the quality of family life. Whereas work is one of the most common sources of stress for adults, school is a major life stressor for adolescents. Therefore, Chapter 4 discusses interference between the social and study domains among university entrants. In Chapter 5, I report on a study of multiple team membership, which is a work design feature wherein employees occupy multiple roles in a variety of teams. Together, these empirical studies provide insights into different forms of inter-role conflict.

1.2 Theoretical Underpinnings

This section presents the overarching theoretical framework of my dissertation. First, I discuss key role-theory concepts that shed light on why people experience inter-role conflict. Having established the sources of inter-role conflict, I then discuss two prominent models on stress and well-being that help explain why inter-role conflict is inherently stressful: the Conservation of Resources (COR) model and the Job Demands-Resources (JD-R) model.

1.2.1 Role theory

The current work is strongly grounded in role theory; it offers an inspirational background and unifying theme for the studies presented herein. Role theory finds its roots in sociology and social psychology, and its basic tenets can be explained through the concepts of *role*, *social position*, and *expectation* (Biddle, 1986). Social positions are parts to be played in society (e.g., parent, student, employee, or spouse) and expectations are "scripts" for behaviour. People occupy various social positions and human behaviour is guided by normative expectations associated with each position. We all have an idea of what it entails to be an employee or a parent. Such shared conceptions generate adherence to some pattern of behaviour, which is further enforced through sanctions for non-compliance. Roles, then, are characteristic behaviour patterns; they exist because persons share norms and hold similar

expectations for the behaviours of members in a particular social position (Biddle, 1986).

Today, people occupy many social positions and have to fulfil many expectations. What happens when a person participates in different roles? Multiple-role theorists have been concerned with this question for decades (see e.g., Goode, 1960; Marks & MacDermid, 1996; Sieber, 1974) and it has long been assumed that multiple role enactment is a source of psychological distress. Theorizing on the negative consequences of multiple role demands identifies two main problems: conflict and overload (Coverman, 1989). Expectations of others and what is believed to be appropriate behaviour for a particular position impose demands on the individual. On the one hand, it is possible that participation in multiple roles creates incompatible demands. The simultaneous occurrence of two or more incompatible sets of pressures is generally referred to as *role conflict*. On the other hand, participation in multiple roles may also be associated with too many demands. When an individual experiences a lack of resources needed to meet all role obligations and demands, this is termed *role overload*. Faced with the double burden of incompatible demands and an overload of demands, individuals may feel that the total set of role obligations is overly demanding, leading to difficulties in fulfilling role obligations, or *role strain* (Goode, 1960).

Together, the role-theory concepts of conflict and overload allow us to better understand why people experience interference between life domains. Inter-role conflict exists when participation in one role is made more difficult by virtue of participation in another role (Greenhaus & Beutell, 1985). As the previous discussion suggests, this interference can be attributed to incompatible demands or an overload of demands. To illustrate, we can take the work-family interface as an example. Work and family roles have distinct norms and requirements that can be incompatible at times. Imagine, for example, that a husband is asked to take some of his unfinished work home, while he promised his spouse to engage in an activity together that evening. In this example, members of the work and family domains put opposing pressures on the person. Yet, even if expectations stemming from these different roles are aligned, this person may feel that the combination of work and family demands creates an overload. That is, the combination of activities at work and at home is taxing the man's resources and he might run out of energy by the end of the day. In both instances, work and family are in conflict with each other in some respect because meeting demands in one domain makes it more difficult to meet demands in the other domain, thus resulting in the experience of role strain.

It follows that research on inter-role conflict draws heavily on the scarcity (or 'pessimistic') approach to multiple roles (Marks, 1977). According to this multiple-role theory, individuals have a limited pool of resources; time, attention, and energy are finite resources that are used up every day in the sum of total activities. Individuals transfer personal resources from one domain [work] to another domain [family] on a daily basis in order to meet various role-related demands. Yet multiple roles compete for a person's limited set of resources, and role performance is therefore unlikely to be optimal in every single domain. The more resources you devote to one domain, the less resources you have available for the other domain, leaving demands in the latter domain unmet. Thus, advocates of the scarcity perspective would argue that different domains – and the associated roles – are linked through a resource drain mechanism (Edwards & Rothbard, 2000).

How domains are linked can be further explained through a discussion of the various forms of work-family conflict. Greenhaus and Beutell (1985) distinguished between time-based, strain-based, and behaviour-based work-family conflict. Time-based and strain-based conflicts are forms of resource drain (see also Ten Brummelhuis & Bakker, 2012). Individuals experience time-based work-family conflict when the work domain consumes time and attention that cannot be spent in (but are required for) the family domain. Strain-based work-family conflict occurs when demands in the work domain deplete people's energy resources, leaving them too fatigued or stressed to function optimally in the family domain. Time-based and strain-based conflicts are therefore instances in which the individual experiences an overload of demands. Behaviour-based conflict, on the other hand, is the consequence of incompatibility regarding behavioural expectations; it refers to a form of work-family conflict that occurs when behavioural patterns spill over from work to family and interfere with performance in the family domain.

Given my focus on conflicts between demands from various social roles, the scarcity perspective forms the theoretical basis of this dissertation. It must be said, however, that it is a rather negative (although dominant) view on multiple roles. In Chapter 5, I take a more balanced approach and explore the scarcity perspective alongside the so-called "expansion" perspective (see Marks, 1977). This 'optimistic' approach shifts the focus from *spending* resources to *producing* resources. Sometimes our participation in a specific social activity does not drain us but leaves us energized afterwards. Contextual and personal resources may be gained rather than lost through multiple role enactment (Sieber, 1974), a thesis that is examined more fully in Chapter 5 in a multiple team membership context.

1.2.2 Conservation of resources model

The stressful nature of inter-role conflict is further articulated by the model of conservation of resources, which was proposed by Hobfoll in 1989 and has since been a leading theory on stress. In essence, the theory postulates that (a) people are motivated to retain, protect, and build resources, and (b) stress is the product of both perceived and actual loss of resources or lack of gain of resources. The kinds of resources that can be lost or gained are objects (e.g., house), conditions (e.g., tenure), personal characteristics (e.g., self-esteem), and energies (e.g., time); these are resources to the extent that they are valued by the individual or are instrumental for attaining further resources.

The theory incorporates predictions about people's behaviours when they are faced with stressful circumstances. When an environmental event or situation denotes depletion of resources, the individual is motivated to minimize or counterbalance resource loss, and he or she will expend resources to prevent net loss of resources. However, people differ with regard to the amount of resources they have at their disposal and are therefore not equally equipped to deal with stressful circumstances. Those who lack resources are more vulnerable to (potential) loss of resources, while those who possess many resources are less negatively affected when they encounter stressors. During non-stressful times, individuals are motivated to enrich their pool of resources. They invest their current resources to buffer against resource losses in the future or to enhance their well-being, as resources are valued in their own right.

Hence, according to COR theory, resources – and in particular loss of resources – are at the core of understanding stress and well-being. On the one hand, individuals are motivated to maintain their resources, and if their resources are threatened or lost, they will experience stress. On the other hand, individuals may expend resources, either to offset (potential) resource loss or as an investment to enrich their resource pool. Furthermore, COR theory assumes that people are not equally vulnerable or resilient to stress, thus forming the basis for the examination of moderators, such as social support (see Seiger & Wiese, 2009).

Grandey and Cropanzano (1999) suggested to adopt the COR model as a theoretical guide for research on inter-role conflict. They argue that inter-role conflict is stressful because resources get lost in the process of juggling multiple role demands. People invest resources in different domains, hoping to find satisfaction and fulfilment in each, yet their multiple role enactment may not reap the anticipated benefits, in particular when they experience difficulties in coordinating their roles. Inter-role conflict is associated with depletion of resources such as time, attention,

and energy (*energies* in the COR model) but may also – in more extreme cases – pose a threat to condition resources. For illustrating purposes, imagine the resource-consuming nature of combining work and family roles again. Needless to say, an individual will experience negative states when he or she is not able to effectively combine these roles. To buffer against stress, the individual employs resources that he or she possesses (e.g., optimism) or calls on resources available in the environment (e.g., social support). Yet this person may also run the risk of disappointing domain members to such an extent that inter-role conflict has serious repercussions for his or her employment status (e.g., when he or she failed to successfully complete tasks) or marriage (e.g., when he or she regularly missed family activities) on the longer term. At work, the individual might receive disciplinary action or may even be fired. At home, he or she might have frequent arguments with the spouse or may even face a divorce. To offset such resource losses, the individual decides to invest extra effort and time on the job and offer conciliatory gifts to the spouse, thus expending resources to prevent net loss of resources.

To conclude, I believe COR theory holds great promise for the examination of inter-role conflict. Its resource-based perspective is central to some of the studies presented in this dissertation. Chapter 2 examines whether social support resources can buffer resource drain due to high workloads. In Chapter 3, I study supportive exchanges between spouses in a resource conservation framework, proposing that individuals strategically invest their social support resources to enhance their spouse's well-being and to enrich their own resource pool. These studies underscore COR theory's notion that people's resources are key to understanding behaviour in everyday circumstances.

1.2.3 Job demands-resources model

In most definitions, stress is described as a state of tension that arises when demands exceed an individual's (coping) resources and as such threaten the ability of an individual to face the challenges at hand. The Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001), which distinguishes between demands and resources in a person's psychosocial environment, is therefore particularly suited to examine individual well-being. It is one of the key theoretical frameworks of job stress and has been used extensively to examine the impact of work characteristics on employee well-being. The JD-R model's basic tenet is that job demands and job resources characterize the psychosocial work environment. Job demands refer to those physical, psychological, social, or organizational aspects of the job that require sustained physical or mental

effort. Job resources, on the other hand, are those aspects of the job that help employees in achieving their work goals, enhance learning and personal growth, or reduce job demands and the associated costs. Examples of job demands are workload and emotional labour, while co-worker support and performance feedback are examples of job resources.

The model further argues that these two broad categories of work characteristics predict employee outcomes through two distinct psychological processes. Job demands are associated with physiological and/or psychological costs through a health impairment or strain process. When employees experience high demands in their work, they have to exert sustained effort to deal successfully with the challenges at hand; this may deplete a person of his or her energy resources and leave the employee feel weary and burdened. Thus, job demands evoke a process of overtaxing and exhaust a person's resource supply. In contrast, job resources initiate a motivational process because they satisfy basic human needs for autonomy, relatedness, and competence, and also increase the likelihood of attaining work goals. The availability of job resources is therefore associated with positive outcomes such as work engagement. A lack of resources in one's work environment precludes goal accomplishment and as such fosters withdrawal and disengagement in employees. Research has provided a strong empirical grounding for the dual processes as proposed by the JD-R model (Bakker, Demerouti, & Schaufeli, 2003; Bakker, Demerouti, & Verbeke, 2004; Hakanen, Schaufeli, & Ahola, 2008; Schaufeli & Bakker, 2004).

A key proposition put forward by the JD-R model is that the dual psychological processes interact to determine employee well-being. That is, job resources may buffer the deleterious effects of job demands on strain, including burnout (Bakker, Demerouti, & Euwema, 2005). Conceptually, in the original formulation of the model linking job demands to strain, Karasek (1979) explains that workload demands place the individual in an energized state of 'stress'. Unless the employee has the resources to cope with the stressor, the unreleased energy will manifest itself internally by producing strain. Karasek's original demands-control model considered control over the execution of tasks (i.e., autonomy) as the most important resource for employees, while Johnson and Hall's (1988) demands-control-support model focused on job control and social support from co-workers as resourceful aspects of the psychosocial work environment. The JD-R model extends the former models by proposing that many different job resources may protect employees from resource depletion due to high job demands.

In sum, the Job Demands-Resources model is built on three core premises. At the heart of the model lies the assumption that work characteristics can be divided into two broad categories, namely job demands and job resources. Second, demands and resources evoke two psychologically different processes (strain and motivation, respectively) that ultimately influence employee well-being and organizational outcomes. Finally, job resources are assumed to play a buffering role in the strain-evoking process; that is, although job resources are important in their own right, they are necessary to deal with (high) job demands in order to maintain certain levels of well-being.

The JD-R model has been presented as "an overarching model that may be applied to various occupational settings, irrespective of the particular demands and resources involved" (Bakker & Demerouti, 2007, p. 213), yet the framework may also be applied to other (non-occupational) settings. In this dissertation, I apply the JD-R model to a higher education setting (Chapter 4) and a team-based organizational setting (Chapter 5). Its application helps to understand how stress and well-being evolve from aspects that characterize the domains that people participate in. However, the examination of demands and resources and their outcomes need not be restricted to a single domain. Ten Brummelhuis and Bakker's (2012) Work-Home Resources (W-HR) model identifies how demands and resources in one domain exert an influence on an individual's functioning in another domain. Therefore, I draw on the Work-Home Resources model to study the interplay of demands and resources in the work-family interface (Chapters 2 and 3).

The W-HR model is in many ways related to the JD-R model but extends the reasoning of this model to the context of multiple domains. The W-HR model seeks to explain the processes linking work and family – specifically, work-family conflict and enrichment – through the examination of personal resources. According to this model, demands and resources in the work and family environments influence an individual's set of personal resources (e.g., energies or skills). The W-HR model provides a process view on the work-family interface: contextual demands in one domain impair functioning in the other domain through a loss in personal resources (i.e., 'conflict' process), while contextual resources in one domain enhance functioning in the other domain through a gain in personal resources (i.e., 'enrichment' process). Thus, building on the resource perspective central to COR theory, the W-HR model specifically addresses the mechanisms (resource depletion versus resource enhancement) through which contextual demands and resources influence well-being and performance across the work-family boundary.

Perhaps more important, the W-HR model explicitly acknowledges the role of time in work-family processes by distinguishing between short-term and long-term processes. Both demands and resources differ in the extent to which they are transient, and many work-family processes occur on a daily basis (e.g., when temporal demands consume energetic resources and lead to more immediate outcomes). Ten Brummelhuis and Bakker's (2012) conceptualization of demands and resources as temporal and volatile (c.f. chronic and structural) strongly informs my studies on the work-family interface, in which I use a daily diary design to examine the everyday (i.e., short-term) act of balancing the dual roles of work and family.

1.3 Research Questions

Below I will outline in more detail what is examined in each of the chapters as well as the research questions that form the basis for these chapters. Four successive studies will be presented that are conducted in various contexts using different methodologies. The first two empirical chapters are based on an experience-sampling project among dual-earner couples. Employees and their working spouses were surveyed at work and at home for a longer period of time. The aim of this design is to gain specific insights into the daily experiences of members of dual-earner couples. Specifically, these chapters focus on the interplay between social support and work-family conflict.

Chapter 2 focuses on the individual employee. Here, I examine what happens on a day when work interferes with family life and, more importantly, what can be done to avoid such interference. This study builds on the extensive literature that has examined the role of social support in reducing work-family conflict (e.g., Luk & Shaffer, 2005; Seiger & Wiese, 2009). This stream of literature is characterized by mixed results and can be described as complex for two main reasons. First of all, scholars have identified different ways in which social support may influence work-family conflict. That is, social support can (a) reduce work-family conflict directly, (b) influence the perception of stressors that ultimately impact on work-family conflict, or (c) buffer the effect of stressors on work-family conflict (Carlson & Perrewé, 1999). Second, the effectiveness of social support may be very much dependent on a number of contingencies, amongst others the source and timing of social support (House, 1981). By taking into account such contingencies, this study aims to provide a rigorous test of the buffering hypothesis of social support (Cohen & Wills, 1985). Specifically, Chapter 2 examines dual-buffering effects of social support at work and at home. The research question guiding this chapter is as follows.

Research Question 1: To what extent does social support buffer the daily work-family conflict process?

Chapter 3 reports on a study that takes the couple as the unit of analysis. Data were gathered from both members of the dyadic relationship in order to examine interdependencies in the dual-earner couple. Social support is viewed as a relation-specific phenomenon because the characteristics or behaviours of one person influence the other person's outcomes. Thus, it is imperative to focus on both the recipient and the provider of social support, not in the least due to discrepancies between the recipient's and provider's perceptions of the support exchange (Shumaker & Brownell, 1984). Thus far, the perspective of the recipient has been prevailing in research on social support. An individual who receives social support is assumed to fare better – and this is the focus of Chapter 2. But what about the provider of social support? It has been argued that doing good makes you feel good (Glomb, Bhave, Miner, & Wall, 2011), but there are also limits to what a person is able and willing to do for somebody else, given that provision of social support requires a certain amount of (energetic) resources (Hobfoll, Freedy, Lane, & Geller, 1990). The aim of this study is to better understand the dynamics associated with everyday supportive exchanges between spouses. In order to do so, the following research questions will be addressed.

Research Question 2: What are the determinants of social support provision in dual-earner couples?

Research Question 3: Which benefits (if any) are associated with providing spousal support?

Whereas an extensive body of research has focused on work-family conflict among working adults (Frone, Yardley, & Markel, 1997; Higgins, Duxbury, & Irving, 1992), only just recently scholars have begun to turn their attention to inter-role conflict among students. Chapter 4 describes a cross-sectional study in which university entrants were surveyed at different points in time throughout their enrolment in a course. Here, the focus lies on the extent to which these young adults experience interference between the social and study domains. This form of inter-role conflict is to a large extent a motivational conflict, which sets it apart from work-family conflict. Work and family are complementary in many ways; having a job allows us to make a living, go on holidays, and pay for our children's education. Friends and school, however, are mostly conflicting in the eyes of young adults and this may result

in a trade-off between study-related and social activities (Grund, 2013). Given that students experience quite some leeway in deciding how much time they spend studying, the social domain poses a tempting set of action opportunities. This chapter considers 'social-study conflict' as a key factor in the analysis of students' psychosocial environment. The research question central to this chapter is as follows.

> *Research Question 4: What is the role of social-study conflict in explaining student stress and well-being?*

Then, the focus shifts from a higher education setting to an organizational setting in which employees are members of multiple teams. In practice, employees are often part of more than one team (Wageman, Gardner, & Mortensen, 2012). Multiple team membership is a new way of structuring work that involves employees working concurrently on two or more teams. The emergence of this work design feature has not yet spurred a scholarly interest in examining the consequences of multiple team membership at the organizational, team, and individual level (for an exception, see O'Leary, Mortensen, & Woolley, 2011). In order to address this void in the literature, Chapter 5 focuses on the individual implications of context switching in a team-based organization. Switching between team contexts implies that employees hold a variety of roles, and in Section 1.2.1, it was explained that engagement in multiple roles is a double-edged sword; the "scarcity" perspective suggests that multiple team membership results in the experience of inter-role conflict in a team-based context, while advocates of the "expansion" perspective would argue that such variety enhances well-being. This final study examines the demanding and resourceful aspects of multiple team membership. The aim is to explore how multiple team membership relates to the dual psychological processes in the Job Demands-Resources model (as described in Section 1.2.3). I ask the following research question.

> *Research Question 5:* To what extent is multiple team membership a demand or resource for employees?

The studies presented in the upcoming chapters will address each of these research questions, after which specific answers to the research questions will be discussed in the concluding chapter of this dissertation.

1.4 Intended Contributions

The primary aim of this dissertation is to examine different forms of inter-role conflict in a variety of settings. In doing so, I intend to make several theoretical contributions to research on inter-role conflict. The first empirical study aims to make a two-fold contribution to the literature on work and family. First, I examine how "contextual demands in one domain [work] drain personal resources, leaving insufficient personal resources to function optimally in the other domain [family]" (Ten Brummelhuis & Bakker, 2012, p. 553), thus testing the process view on work-family conflict as proposed by the W-HR model. Second, I examine social support as a resource in the work-family conflict process, thus testing the buffering model of social support (Cohen & Wills, 1985) in everyday high-load situations. The second empirical study also focuses on social support in the context of work and family, yet it incorporates the perspective of the provider and examines the dynamics of social support provision in the family domain. This study aims to advance social support theory by conceptualizing social support at the dyadic level and testing how its provision can benefit the well-being of the couple. The third empirical study aims to make a contribution to the literature on student stress and well-being by introducing the concept of inter-role conflict, thus extending the focus on factors that are purely academic in nature. Furthermore, this study integrates role conflict theories (e.g., Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1977) and motivational conflict theories (e.g., Hofer, Kuhnle, Kilian, Marta, & Fries, 2011), with the aim to advance theorizing on inter-role conflict. The final empirical study contributes to the ongoing debate about whether multiple roles diminish or enhance psychological well-being (Marks, 1977). Here, I simultaneously test the two competing multiple-role theories ("scarcity" versus "expansion") in the context of multiple team membership.

In addition, and closely intertwined with some of the theoretical advancements, I believe the empirical studies make several methodological contributions. First, some of the chapters rely on experience sampling methodology (ESM) to capture intraindividual variation in constructs. That is, I examine work-family conflict as a *day-to-day* process and look at *daily* spousal support provision. Only few studies have conceptualized (and measured accordingly) social support as a volatile resource that can be high on some days but low on other days. The current work addresses this limitation and thus takes a novel methodological approach to studying social support. A second methodological contribution lies in the use of a dyadic study design for the examination of daily spousal support provision in dual-earner couples. Social support is inherently a dyadic phenomenon but has rarely been studied as

such. I apply actor-partner interdependence modelling (APIM) to incorporate the perspectives of both spouses, thereby overcoming some of the methodological limitations that characterize most research on dyadic phenomena (see Krasikova & LeBreton, 2012). In sum, the research methodology and corresponding analyses are selected consistent with the temporally dynamic nature of the constructs and the dyadic nature of the relationships.

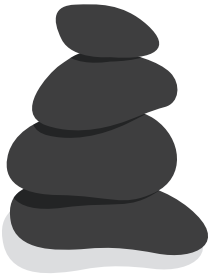
The empirical studies are also conducted to make contributions in more practical terms. The practical relevance of examining different forms of inter-role conflict lies in the insights for the lay public and practitioners on what brings about and what can prevent inter-role conflict. In the studies on the work-family interface, I focus on social support as a resource for preventing stress and enhancing well-being. As other scholars have already noted, research on social support "will enable us to move one step closer toward identifying practical ways to stimulate this exchange" (Granrose, Parasuraman, & Greenhaus, 1992, p. 1368) and "has direct implications for the design of interventions" (Cohen & Wills, 1985, p. 311). My focus on students' inter-role conflict is grounded in the belief that adolescents' ability to thrive in multiple domains is critical for their well-being (Dumont & Provost, 1999). Considering the high levels of stress among adolescents (Suldo, Shaunessy, & Hardesty, 2008), paired with reduced academic motivation (Fries, Dietz, & Schmid, 2008), I deem it important to examine students' role balancing difficulties, with the aim to identify ways to assist them in minimizing interference between domains. Finally, multiple team membership is a new way of using teams that has become more prevalent in recent years, which creates the need for exploring its impact on individual employees. The final study aims to unravel the demanding and resourceful aspects of multiple team membership. Empirical insights into the consequences of multiple team membership will enable practitioners to assist employees in how they go about doing their work, so as to prevent role strain in team-based settings.

In order to address the research questions and pursue the intended contributions, I will present four empirical studies[1] in the chapters that follow.

[1] I worked on these papers with numerous co-authors, and the style in Chapters 2 to 5 is therefore one in which the first person plural ('we') is used.

CHAPTER 2

Social support at work and at home: Dual-buffering effects preventing work-family conflict



This chapter is based on "Pluut, H., Ilies, R., Curşeu, P. L., Liu, Y., & Meeus, M. T. H. (under review). Social support at work and at home: Dual-buffering effects in the work-family conflict process," which is being considered for publication in Academy of Management Journal at time of printing.

2.1 Introduction

Most of us spend a large proportion of our waking time at work, and many of us seek jobs that are exciting, challenging and fulfilling. Moreover, for those of us with families, work provides the means to take care of our families or give our children a good education or afford family vacations – and these are outcomes of great importance for individuals and society. But work can also be stressful, and work-induced strain is often carried home and can diminish the quality of family life. This study explores these processes and, more importantly, focuses on what can be done so that the effects of high demands in one's workday produce less strain and have lesser negative effects on one's family life.

Role conflict theory posits that juggling roles in both the work and family domains often leads to work-family conflict (Zedeck & Mosier, 1990), which is "a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect" (Greenhaus & Beutell, 1985, p. 77). Modern organizations often encourage (or at least allow) their employees to perform their work anytime and anywhere. This has led to domain boundaries that are more flexible (e.g., occasional home-based work) and permeable (e.g., responding to e-mails after work time). In such instances, roles are blurred and the likelihood of influences from one domain to another becomes higher (Ashforth, Kreiner, & Fugate, 2000). Given the prevalence of work interference with family, and given its detrimental effects on outcomes in both the work and family domains (Peeters, Ten Brummelhuis, & Van Steenbergen, 2013), it is not surprising that many researchers have focused on identifying personal or situational factors that reduce inter-role conflict.

In this context, social support is a much-emphasized concept (Carlson & Perrewé, 1999; Kossek, Pichler, Bodner, & Hammer, 2011; Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011). Consistent with the more basic psychological theory on the role of social support in improving psychological and physiological health (symptomatology; Cohen & Wills, 1985), social support can be considered either an antecedent of work-family conflict (the *main-effect* model) or a moderator for the relationship between job demands and work-family conflict (the *buffering* model). And, as Cohen and Wills (1985) note with respect to the effects on psychological and physical health, "understanding the relative merits of these models has practical as well as theoretical importance because each has direct implications for the design of interventions" (pp. 310-311). The main-effect model implies that, while certainly beneficial in reducing work-family conflict, social support cannot mitigate the effects of high job demands, which are so prevalent in today's

challenging jobs. That is, only a buffering effect can prevent high job demands from producing work-family conflict.

Yet the general pattern of empirical findings favours the main-effect model (Kossek et al., 2011; Michel et al., 2011) and has provided relatively weak support for the buffering model of social support in the work-family process (e.g., Carlson and Perrewé, 1999; Luk & Shaffer, 2005; Seiger & Wiese, 2009). We do not contest the validity of these findings, but we believe that an alternative conceptualization and methodology to study work-family conflict will help build on previous cross-sectional studies. Specifically, we argue that (a) the process leading up to work-family conflict should be studied on a day-to-day basis (Ilies et al., 2007) and (b) social support should be conceptualized as a volatile resource that is transient in nature and hence higher on some days than on other days (Ten Brummelhuis & Bakker, 2012). We, like others (e.g., Butler, Song, & Ilies, 2013), believe that experience sampling methodology (ESM) may prove promising for research in this area, as this data collection method allows for examining daily fluctuations within individuals (Dimotakis & Ilies, 2013).

Using a within-individual design, the daily survey study presented in this paper explores the work-family conflict process and, more importantly, proposes and tests two mechanisms by which social support alleviates work-family conflict. Taking a dual view of social support, we distinguish between support at work and at home, and we aim to contribute to theory on work and family by identifying when do different sources of social support prevent or diminish the negative effects of high job demands on resource depletion and work-family conflict. In an attempt to advance our understanding of the psychological mechanisms by which social support can reduce work-family conflict beyond the simple main-effect model (i.e., social support is beneficial), we provide a within-individual test of the buffering model of social support in the stressor–strain–work-family conflict relationship.

2.2 Theory and Hypotheses

In building our conceptual model, we draw on the Work-Home Resources (W-HR) model (Ten Brummelhuis & Bakker, 2012). This framework informs our study in three important ways. First, the W-HR model provides a process view on work-family conflict in which high job demands are the starting point for work-family conflict. To illustrate this, imagine having to meet a deadline at work and as a consequence you are working at a high work pace that day. This high workload depletes your personal resources in such a way that you feel fatigued or exhausted by the end of the

workday when leaving for home. Coming home, you feel you are drained from work and you therefore do not have the energy to spend time with your children or enjoy other family activities as much as you normally do. As can be seen from the above example, the process view on work-family conflict is one in which "contextual demands in one domain [work] drain personal resources, leaving insufficient personal resources to function optimally in the other domain [family]" (Ten Brummelhuis & Bakker, 2012, p. 553).

A second and related element of the W-HR model is the acknowledgement that work-family experiences may vary significantly from day to day. Contextual work demands may be *temporal* and influence *daily* outcomes in the family domain through a change in *volatile* personal resources (i.e., energies). Consistent with the process view on work-family conflict (Ten Brummelhuis & Bakker, 2012), this study tests the day-to-day mediation sequence in which workload (contextual job demand) has consequences for the level of energy (personal resource) at the end of the workday, which in turn influences work-family conflict experienced at home.

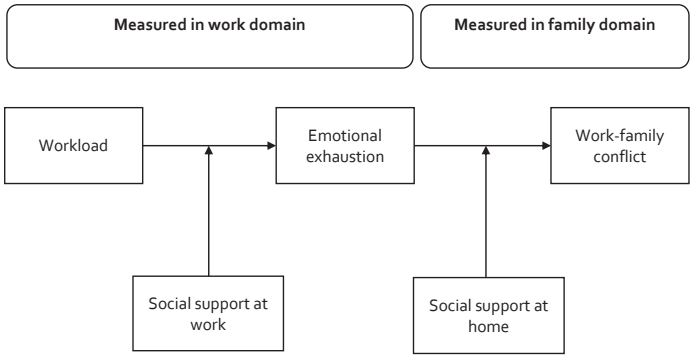
A third characteristic of the W-HR model that informed the current research endeavour is the focus on conditional factors (resources) that make it more or less likely for work-family conflict to occur. Although the W-HR model focuses on resources that are embedded in the self (e.g., self-esteem) or the macro environment (e.g., cultural values), social support resource theory (Hobfoll, Freedy, Lane, & Geller, 1990) argues that "the broad array of resources that allow people to withstand stress are, to a large extent, social" (p. 471). According to this theory, social support provides a rich pool of resources to call upon in the face of everyday stressors. In this study, we focus on social support in the work and family domains and examine to what extent these contextual resources are conditional factors that prevent or attenuate work-family conflict.

Subsequently, we use theory on social support (e.g., Cohen & Wills, 1985) to propose that support from different sources acts as a buffer in preventing work-family conflict at different points in the mediated sequence that we study. We believe this is our primary contribution to theory on work and family; we identify when and where do two specific forms of social support (at work and at home) buffer the effects of high workloads so as to protect employee resources and ultimately prevent work-family conflict. As noted, work-family conflict arises on a day-to-day basis and we study it as such. This conceptualization of the work-family conflict process enables us to test an integrative model examining the role that social support at work and at home – as volatile resources – play in influencing the daily sequence of experiences that create work-family conflict. The full model that we test in this study is provided in

Figure 2.1. The following sections will describe the theoretical argumentation for each of the relationships in the model.

FIGURE 2.1

Overall conceptual model



2.2.1 The work-family conflict process

Workload is the perceived amount of work to be performed by an individual. Because it is a quantitative demand that reflects the extent to which the job requires working hard and fast, it is often treated as a job stressor (Spector & Jex, 1998). Although people might enjoy challenges at work or having to work at a high pace (Ohly & Fritz, 2010), high workload reflects a demanding work situation in which one has to expend effort to do a high volume of work under time pressure. Karasek (1979) explained that – all things (resources) being equal – workload demands are likely to result in load reactions and related impaired outcomes. Directly relevant to our study, meta-analytic findings suggest that workload is among the strongest and most consistent predictors of differences in emotional exhaustion (Lee & Ashforth, 1996) and work-family conflict (Michel et al., 2011) between individuals.

Previous intraindividual studies have shown considerable variation in workload over time (Butler, Grzywacz, Bass, & Linney, 2005; Totterdell, Wood, & Wall, 2006). On days when high workload is experienced, resource drain is likely to occur (Ten Brummelhuis & Bakker, 2012). A high volume and pace of work requires that effort is invested in the work domain and this takes up personal resources. Resources (energies) are finite and, as a consequence, fewer resources are available for the family domain (Edwards & Rothbard, 2000), thus leading to heightened work-family conflict on days when workload is high. With some exceptions (e.g., Williams & Alliger, 1994), findings from within-individual studies are generally in line with the proposition of the W-HR model that high job demands increase end-of-day work-

family conflict. Butler and colleagues (2005) reported a significant relation between daily measures of job demands and work-family conflict, and Ilies and colleagues (2007) found that day-specific workload predicted work-family conflict at home. In sum, within-individual research on day-to-day work-family conflict has mostly replicated findings from cross-sectional research on the association between workload and work-family conflict (Michel et al., 2011).

However, there has been little research on the processes (i.e., mediating constructs) through which workload results in work-family conflict. In other words, which load reactions to a high-load workday explain work-family conflict? In this paper, to align our hypotheses with the theoretical explanation based on personal resources from the W-HR model, we examine the role of emotional exhaustion as a mediating mechanism through which daily workload leads to work-family conflict.

Emotional exhaustion is a component of burnout (Maslach & Jackson, 1981) and "is characterized by a lack of energy and a feeling that one's emotional resources are used up" (Cordes & Dougherty, 1993, p. 623), and it can therefore be considered an indicator of resource depletion. Teuchmann, Totterdell, and Parker (1999) showed that emotional exhaustion varies considerably from day to day and is predicted by fluctuating levels of daily workload. In another within-individual study, Barling and Macintyre (1993) found that role overload influenced emotional exhaustion on the same day. Daily workload has also been found to lower end-of-day vigor (Sonnentag & Niessen, 2008), a state that reflects the availability of psychological resources and is therefore related (negatively) to emotional exhaustion. These findings are in line with cross-sectional studies on the influence of workload on emotional exhaustion, conducted in a variety of occupational settings (Deery, Iverson, & Walsh, 2002; Greenglass, Burke, & Fiksenbaum, 2001; Thompson, Kirk, & Brown, 2005).

Emotional exhaustion – and burnout in general – has both emotional and interpersonal consequences (Cordes & Dougherty, 1993). People who experience burnout become more impatient, irritable, moody and less tolerant. Yet not only the individual suffers; relationships with family members become deteriorated. Jackson and Maslach (1982) studied the detrimental effects of a husband's burnout on the quality of family life. A burned-out husband displayed more anger, was less involved in family matters, was more likely to spend his free time away from the family, and suffered from lower marital satisfaction. In the same study, wives reported that emotionally exhausted husbands complained more about problems and were more upset and tense at home. In other words, job strain was brought home. We therefore expect that emotional exhaustion can explain how work overload leads to impaired outcomes in the family domain (e.g., spousal conflicts).

It must be said, however, that several authors treated work-family conflict as a source of emotional exhaustion (Demerouti, Bakker, & Schaufeli, 2005; Janssen, Peeters, De Jonge, Houkes, & Tummers, 2004; Posig & Kickul, 2004), and this approach makes sense when one examines between-individual differences: those who experience more work-family conflict in general are likely to be more exhausted. We are unaware of within-individual research linking emotional exhaustion to work-family conflict. However, we believe that the workload—emotional exhaustion—work-family conflict ordering represents the proper sequencing when explaining *daily* work-family conflict (and we measure these constructs as such). In line with the theory from the W-HR model, which proposes that high daily job demands deplete personal resources that employees need for fulfilling their family roles, we put forward the following hypothesis.

> *Hypothesis 1*: Within individuals, emotional exhaustion mediates the positive relationship between workload and work-family conflict.

2.2.2 Social support as a buffering mechanism

Social support is a key interpersonal resource that has received considerable attention in the work-family literature (Kossek et al., 2011). It can be defined as "an exchange of resources between at least two individuals perceived by the provider or the recipient to be intended to enhance the well-being of the recipient" (Shumaker & Brownell, 1984, p. 13). It involves caring and showing concern (emotional support), giving advice and making suggestions (informational support), lending a hand (instrumental support), or providing feedback relevant to self-evaluation (appraisal support) (House, 1981). Social support can come from a variety of sources, in the work domain (co-workers, supervisors) and in the family domain (spouse).

Many scholars have proposed that social support can protect employees from the stressful effects of high job demands on job strain (Van der Doef & Maes, 1999) and work-family conflict (Carlson & Perrewé, 1999). In their seminal paper, Cohen and Wills (1985) explain the stress buffering mechanisms through which social support may reduce the effects of stress on psychological and physical health. First, social support can influence the appraisal process (i.e., potential stressors are not appraised as being stressful in the presence of social support). Second, even if potential stressful events are appraised as stressful, social support may result in a more positive reappraisal or facilitate adjustive counter responses. Although intuitively appealing, empirical evidence for the buffering role of social support has been mixed at best (see e.g., Viswesvaran, Sanchez, & Fisher, 1999).

For social support to have buffering (as opposed to main) effects, it must be responsive to the specific coping requirements of stressful events. Accordingly, the specificity model of social support (Cohen & McKay, 1984) suggests a refinement of the buffering hypothesis on the basis of several contingencies: who gives what to whom regarding which problems and when (House, 1981; Jacobson, 1986). It has been argued that studies that do not incorporate such refinements in their design would have diminished chances of detecting buffering effects and their results may be biased towards main-effects conclusions (Cohen & Wills, 1985; House, 1981). In our view, such limitations are particularly salient in between-individual and time-invariant studies, primarily because such studies cannot capture the timing of different sources of social support. We therefore believe that the overreliance on cross-sectional data (Butler et al., 2013; Casper, Eby, Bordeaux, Lockwood, & Lambert, 2007) might explain the lack of significant findings on the buffering role of social support.

In contrast, ESM allows for the conceptualization and measurement of social support as a contextual and volatile resource (i.e., on some days individuals receive more support than on other days; see Ten Brummelhuis & Bakker, 2012) as well as for capturing the precise timing of various forms of social support during the day. By design, then, the current study takes into account the temporal dimension of social support, as we are able to examine whether social support is received when needed (that is, when workload and emotional exhaustion – also volatile constructs – are high). But even if social support is available at the right time, there should also be a reasonable fit between the psychological domain where the cause of strain or work-family conflict occurs (work vs. home) and the source of support. We therefore take a dual view of social support and distinguish between support at work (from co-workers and supervisor) and at home (from the spouse).

Recent meta-analyses suggest that social support works best in reducing work-family conflict when it is specifically matched to the demands that create such conflict (Byron, 2005; Ford, Heinen, & Langkamer, 2007). This matching hypothesis has led researchers to consider only work-related sources of support (and not support at home) when studying work-to-family conflict (e.g., Kossek et al., 2011). Yet this is not in line with the notion that work-family conflict involves a process with daily events and experiences in both the work domain and the family domain (Ten Brummelhuis & Bakker, 2012). Therefore, based on theoretical grounding suggesting the domain specificity of effects in the work-family interface, we expect that both work support and family support exert an influence on the work-family process yet within their respective domains.

Drawing a parallel to Cohen and Wills' (1985) theoretical arguments for the buffering model of social support, we propose that in the process by which job demands create work-family conflict, social support at work and at home have distinct functions. First, social support *at work* can prevent high job demands from depleting resources (i.e., attenuate their effect on emotional exhaustion), perhaps through the appraisal of high job demands as non-stressful or by making employees less reactive to perceived stress. Social support from co-workers and supervisors provides the employee with additional resource supplies that can be used to deal with high workloads, thereby reducing the resource loss that is typically associated with high workloads in the absence of social support. Informational and instrumental support enable employees to more effectively tackle their workload so that high workloads would not be appraised as stressful. Emotional support may help employees to psychologically cope with the stressful nature of overload. Supportive social interactions also increase positive affect (see Watson, 2000), which – due to its energetic arousal component – increases motivation (e.g., Erez & Isen, 2002; Ilies & Judge, 2005). All in all, social support at work enables employees to manage high workloads and they should therefore experience less emotional exhaustion. This is consistent with Ten Brummelhuis and Bakker (2012), who posited – on the basis of a key proposition of the JD-R model (Bakker & Demerouti, 2007) – that certain resources (e.g., social support) can attenuate the negative effects of certain demands (e.g., workload) on resource depletion (indicated by emotional exhaustion).

Second, even if personal resources become depleted, social support *at home* can be a buffer to manage strain. As Ten Brummelhuis and Bakker (2012) note, "people with more resources are less negatively affected when they face resource drains because they possess substitute resources" (p. 547). Social support at home provides the employee with additional resources that can be used to deal with family demands, thus alleviating the effect of emotional exhaustion on family role fulfilment (i.e., on work-family conflict). Such resources may come in the form of positive affect that is induced by supportive interactions at home (Watson, 2000), and positive affect can enable employees to more effectively perform their family role. Indeed, in a daily study, Ilies and colleagues (2007) found that on evenings when they experienced more positive affect employees engaged in more social activities with the family.

It is also possible that social support at home leads to a quicker recovery from exhaustion because supportive spouses most likely allow employees to engage in recovery activities early during their time at home, thus enabling them to deal with family demands later in the evening. On this point, using daily repeated measurements, Repetti (1989) found that a supportive spouse facilitates partner's

social withdrawal, which is an effective recovery strategy after a demanding workday. Finally, social support at home may diminish the effect of emotional exhaustion on work-family conflict via a perceptual mechanism. Spousal support has been found to reduce family demands (Carlson & Perrewé, 1999) as well as partnership strain (Seiger & Wiese, 2009). Thus, social support may lead to more positive and less demanding perceptions of the home environment, thereby reducing inter-role conflict for exhausted employees.

In sum, we propose that social support at work minimizes the resource loss stemming from high job demands – as a first line of defence against the occurrence of work-family conflict in our model – and social support at home provides the employee with substitute resources that can counterbalance the resource loss – our second line of defence against work-family conflict.

The theoretical rationale underlying the differential effects of support at work versus support at home in our model may require additional explanation. Our theorizing is based on the notion that the extent to which social support can provide a buffer in the workload—emotional exhaustion—work-family conflict process is dependent on the fit between the coping requirements and the available support. Put differently, in order for buffering to occur, social support should be available from sources closely related to the stressor or strain in question (LaRocco, House, & French, 1980). It is therefore important to distinguish between the stressor–strain process and the strain–outcome process, because coping requirements for stressors may differ from those for strain (Cohen & McKay, 1984). In the stressor–strain process, support is provided in order to prevent a stress response in the employee. We propose that social support from work sources is most likely to prevent a stress response in the face of high workloads because co=workers and supervisors can provide content-relevant resources. In the strain–outcome process, the support provider attempts to eliminate the experience of stress in the employee, and we believe that the spouse is most likely to meet these demands. As a border keeper (Clark, 2000), he or she can assist in replenishing personal resources that got lost at work, thus preventing resource depletion from translating into work-family conflict.

As far as timing of social support is concerned, co-workers and supervisors are more readily available sources of support than the spouse during the workday. The opposite is true when it comes to managing strain when coming home from work. When workload produces emotional exhaustion, this level of strain – although caused by the job – is for the most part experienced at home, having adverse consequences for family life. Therefore, the spouse is the most likely source of social support to counterbalance resource loss and minimize the interference from job strain brought

home. Consistent with this line of reasoning, we have measured social support from supervisor and co-workers during the stressor–strain process that occurs at work, while spousal support was measured at home during the strain–outcome process.

Hypothesis 2: Daily social support at work (from co-workers and supervisor) moderates the within-individual effect of workload on emotional exhaustion such that this relationship is weaker on days when one receives more rather than less social support at work.

Hypothesis 3: Daily social support at home (from the spouse) moderates the within-individual effect of emotional exhaustion on work-family conflict such that this relationship is weaker on days when one receives more rather than less social support at home.

2.3 Method

2.3.1 Sample

This study was part of a larger data collection effort among dual-earner couples in the Netherlands. The authors collaborated with a number of undergraduate students to recruit couples that were living together at the time of the study and with both partners agreeing to complete daily questionnaires. Our sample consisted of 64 working couples (128 individuals). Only opposite-sex couples participated in the study, resulting in an equal percentage of men and women. Analysis of descriptive information about the participants revealed that, on average, couples had been in a relationship for 16.8 years and had been living together for 14.8 years. The mean number of children living at home was one. The average age of the participants was 39.6 years (range from 23 to 63), and they had a mean of 33.5 actual working hours a week. Participants held jobs in a variety of sectors, such as healthcare, education, research, and information technology. More than half of the participants attained a higher education degree (40.2% higher vocational training and 20.2% university education).

2.3.2 Procedure

At the start of the study, the participants responded to a general one-time questionnaire that assessed demographic variables. Then, they were asked to fill out one daily survey at work and one daily survey at home. Working couples agreed to participate in the study for up to two weeks (some participated for only one week). All

surveys had to be filled out individually and couples were instructed not to discuss the questions or their answers with each other. Respondents could opt for hardcopy questionnaires, yet the vast majority of respondents preferred to fill out the questionnaires digitally. E-mails with links to the surveys were sent twice a day. Respondents were instructed to complete the work survey about an hour before the end of their workday, while the home survey needed to be filled out about an hour before respondents went to bed. We were able to check whether respondents responded to the questionnaires at the appropriate times, as the surveys contained a time stamp. Because of missing data, our final sample includes 112 participants (16 respondents had no or only one useful daily record) who provided 635 daily records, with an average of 5.67 days per person (*SD* = 2.25 days) out of a maximum of 9 days (a national holiday was part of the two-week experience-sampling period).

2.3.3 Measures

The measures described below incorporated minor modifications in order to capture the daily nature of the constructs. All measures were rated on a five-point Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*.

Workload. We measured employees' workload with a nine-item scale previously used by Ilies and colleagues (2007) to measure daily workload. The scale was included in the afternoon questionnaire that was administered at work. Example items include "Today, I have to work fast" and "Today, I have to deal with a work backlog." Across days, the average internal consistency was .93.

Emotional exhaustion. To measure employees' emotional exhaustion, we selected five items from the emotional exhaustion subscale of the Maslach Burnout Inventory (Maslach & Jackson, 1981). Our scale included items such as "Today, I feel emotionally drained from my work" and "Today, I feel like I'm too tired to face another day on the job." The emotional exhaustion scale was part of the survey that respondents completed at the end of their workday. The average Cronbach's alpha across days was .90 for this scale.

Social support at work. Social support at work was evaluated daily at the end of the workday. The measure was developed on the basis of the Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet, & Farley, 1988), which focuses on friends, family, and significant other as sources of support. We therefore adapted the items to fit the work context, using four items to measure co-worker support and four items for supervisor support. Our eight-item scale consisted of such items as "I can count on my co-workers when things go wrong" and "I get the help and support I need from my supervisor." Respondents were instructed to indicate

their agreement with these statements as they applied for that day. The average internal consistency across the measurement points was .88.

Work-family conflict. Work-family conflict was assessed with five items from the Work-Family Conflict Scale developed by Netemeyer, Boles, and McMurrian (1996). As part of the home survey, the respondents indicated the extent to which work had interfered with family that day on items such as "Today, the demands of my work interfered with my home and family life" and "Today, my job produced strain that made it difficult to fulfil family duties." Across days, the average internal consistency was .92.

Social support at home. Social support at home was evaluated each evening by asking respondents to report the extent to which they had felt supported by their spouse that day. Similar to our measure for social support at work, we modified items taken from Zimet and colleagues (1988) to refer to the spouse (or life partner) as the source of social support. This nine-item measure consisted of items such as "I can talk about my problems with my partner" and "My partner is a real source of comfort to me." Respondents were instructed to indicate their agreement with these statements as they applied for that day. Across days, the average Cronbach's alpha was .96 for this scale.

Control variables. As a comparative test, we performed separate analyses with and without control variables to examine their effect on the observed relationships (Spector & Brannick, 2011). We controlled for momentary positive and negative affect (PANAS; Watson, Clark, & Tellegen, 1988) as well as for individual differences in traditional work-family variables (i.e., gender, work hours per week, number of children living at home, and educational level). None of these variables changed the results in a meaningful way. We therefore do not include these controls in the analyses reported below.

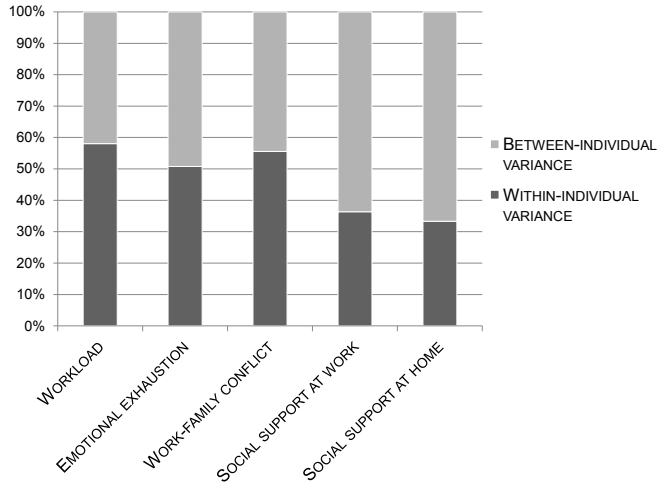
2.3.4 Analyses

The use of repeated measurements resulted in a nested data structure, where days (Level 1; n = 635) are nested within individuals (Level 2; n = 112) within couples (Level 3; n = 59). For each variable, we estimated a null model (i.e., no predictors are specified) that partitions the total variance into between-individual and within-individual components. Figure 2.2 shows the proportion of variance in each construct score that is attributable to Level 1 (within-individual variance) and Level 2 (between-individual variance). The percentage of variance due to within-individual variation in construct scores varied between 33.5% (social support at home) and 58.6%

(workload). These findings justify within-individual analyses, as they indicate that experiences vary considerably from day to day.

FIGURE 2.2

Reported variance for null models



Given that our conceptual model (see Figure 2.1) suggests moderated mediation, we decided to utilize the multilevel modelling approach outlined by Bauer, Preacher, and Gil (2006). This methodology estimates simultaneously the two paths in our model: path *a* linking workload to emotional exhaustion (X-M) and path *b* linking emotional exhaustion to work-family conflict (M-Y). It further enables us to test the extent to which social support at work buffers the X-M relationship and social support at home buffers the M-Y relationship, through the inclusion of moderating variables. We supplemented this analysis with a more piecemeal approach in HLM that allows for the specification of three-level models. For each outcome variable (emotional exhaustion, work-family conflict), we instructed HLM to estimate regression models at three levels of analysis. The level-1 models regressed the daily outcomes on the daily predictors. Specification of the level-2 models involved random intercepts and random slopes to account for differences across individuals. The level-2 intercept was specified as varying randomly across couples to control for dependency within level-3 units.

In all analyses, we centred each level-1 predictor variable relative to the individual's mean across days on that variable. As such, the scores represent deviations from the respondent's mean, and "the subject serves as his or her own control" (DeLongis, Folkman, & Lazarus, 1988, p. 487). This centring approach

eliminates all between-individual variance so that the results of the multilevel analyses are estimates of within-individual effects that are not confounded by any level-2 or level-3 variables (i.e., differences between individuals or couples) (see also Ilies et al., 2007).

2.4 Results

Table 2.1 presents the descriptive statistics and the correlational matrix for all the study variables.

TABLE 2.1

Descriptive statistics and bivariate correlations

Variable	*M*	*SD*	1	2	3	4	5
1. Workload	3.03	.57	–	.50**	.11**	.001	.01
2. Emotional exhaustion	2.23	.60	.38**	–	.21**	-.12**	-.10*
3. Work-family conflict	2.10	.64	.21**	.35**	–	-.07	-.04
4. Social support at work	3.63	.59	.12	-.11	-.07	–	.12**
5. Social support at home	4.04	.57	.11	-.18	-.09	.23*	–

Note. Means (*M*) and standard deviations (*SD*) are between-individual descriptive statistics. The correlations below the diagonal represent between-individual associations, which are calculated based on individuals' aggregated scores (N = 112, pairwise). The correlations above the diagonal represent within-individual associations and are calculated using the group-mean centred scores (Ns = 555 to 762, pairwise).

*p < .05. **p < .01.

As noted, to test our model in a holistic manner, we used the multilevel procedures of Bauer and colleagues (2006). The results of this set of analyses can be found in Table 2.2. Testing the mediation model as a first step, we found that workload was positively associated with emotional exhaustion (p < .001) and emotional exhaustion was a significant predictor of work-family conflict (p = .021). Thus, both paths of the mediation (a = .45, b = .21) were significantly different from zero. To test our mediation hypothesis directly, we used Monte Carlo simulations with 20,000 repetitions to calculate the indirect effect and generate a 95% confidence interval (CI). First, we used Preacher and Selig's (2010) online web utility for assessing multilevel mediation, which considers the covariance between the two random effects (paths *a* and *b*) and as such produces estimates of random indirect effects (i.e., they are allowed to vary across level-2 units). Results showed that the average random indirect effect was -0.01 with a 95% CI of [-0.08, 0.10]. Second, we fixed the slopes in

our mediation model and then used Selig and Preacher's (2008) standard method for producing estimates of the indirect effect. We found that the fixed indirect effect was 0.11 with a 95% CI of [0.06, 0.16]. Thus, Hypothesis 1 was supported only when using a fixed effects approach[2].

TABLE 2.2

HLM results of testing moderated mediation

	Total effect		Mediation model				Moderated mediation model			
	X – Y		X – M		M – Y		X – M		M – Y	
Level-1 predictors	$\hat{B}$	SE	$\hat{B}$	SE	$\hat{B}$	SE	$\hat{B}$	SE	$\hat{B}$	SE
Intercept	2.09**	.06	2.24**	.06	2.09**	.06	2.23**	.06	2.08**	.06
Workload (X)	.13**	.05	.45**	.05	.14*	.06	.45**	.04	.09	.05
Emotional exhaustion (M)					.21**	.07			.25**	.06
Support at work (W)							-.16**	.08		
X × W							-.16*	.07		
Support at home (V)									-.05	.06
M × V									-.51**	.19

Note. $\hat{B}$ = unstandardized HLM coefficient. SE = standard error. The dependent variable (Y) is work-family conflict. The X – M and M – Y models were estimated simultaneously. Moderated mediation tests were conducted with Bauer et al.'s (2006) procedures in HLM 6.

*p < .05. **p < .01.

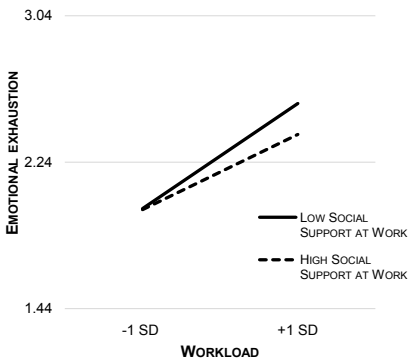
We then tested the moderated mediation model in full, again using Bauer and colleagues' procedures (see Table 2.2). In support of Hypotheses 2 and 3, we found that social support at work moderated the effect of workload on emotional exhaustion (path *a*) and social support at home moderated the effect of emotional exhaustion on work-family conflict (path *b*). These buffering effects are plotted in Figures 2.3 and 2.4 using the simple slopes procedure described by Preacher, Curran, and Bauer (2006). We also calculated the region of significance of the simple slopes, which defines the specific values of the moderator at which the slope is statistically significant. We found that the simple slope of emotional exhaustion regressed on workload was significant for most of the observed values of social

[2] When both the *a* and *b* coefficients are allowed to vary across level-2 units, the estimate of the indirect effect is no longer simply the product *a***b* but instead a function of *a* and *b* as well as the level-2 covariance between their random effects, such that the formula becomes *a***b* + cov_{ab} (Bauer et al., 2006). In our case, the covariance between the two random effects is negative, and this accounts for the nonsignificant random indirect effect.

support at work (i.e., centred scores ranged from -2.66 to 1.43 and any slope is statistically significant for values < 0.97). In contrast, the effect of emotional exhaustion on work-family conflict was significant for a relatively smaller range of observed values of social support at home (i.e., centred scores ranged from -2.17 to 1.47 and any slope is statistically significant for values < 0.22). Thus, probing the interactions revealed that social support at work and at home differ somewhat in the strength of their buffering effects.

FIGURE 2.3

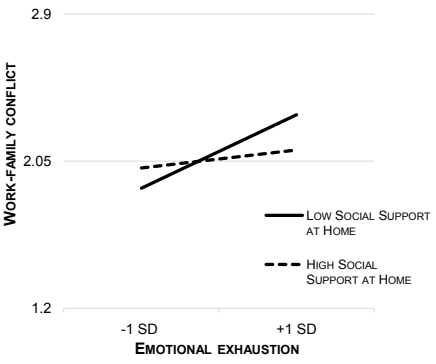
First-stage moderation effect of social support at work



Note. Interaction of social support at work with workload in predicting emotional exhaustion. The values on the y-axis refer to the mean and ±1 SD scores for emotional exhaustion. Simple slopes are presented for conditional values of the moderator at ±1 SD. Tests of simple slopes using Preacher and colleagues' (2006) procedure are $z = 9.71$ ($p < .001$) for the low social support at work condition (–1 SD) and $z = 6.86$ ($p < .001$) for the high social support at work condition (+1 SD).

FIGURE 2.4

Second-stage moderation effect of social support at home



Note. Interaction of social support at home with emotional exhaustion in predicting work-family conflict. The values on the y-axis refer to the mean and ±1 SD scores for work-family conflict. Simple slopes are presented for conditional values of the moderator at ±1 SD. Tests of simple slopes using Preacher and colleagues' (2006) procedure showed that only the slope for low (–1 SD) social support at home was statistically significant ($z = 4.45$, $p < .001$). At high (+1 SD) levels of social support at home, the effect of emotional exhaustion on work-family conflict was not significant ($z = 0.98$, $p < .328$).

Table 2.3 presents the results of the within-individual analyses in three-level HLM models. Again, workload scores were significant predictors of emotional exhaustion scores ($\beta = .49$, $p < .001$). Furthermore, the results from Model 1 for work-family conflict show that on days when workload was higher, employees experienced more work-family conflict, compared to days when workload was lower ($\beta = .12$, $p = .016$). As a second step, we entered workload and emotional exhaustion simultaneously as predictors of work-family conflict (Model 2). Emotional exhaustion was a strong predictor of work-family conflict ($\beta = .21$, $p = .002$). Upon introducing emotional exhaustion as a predictor, the effect of workload on work-family conflict substantially diminished (to $\beta = .05$) and became non-significant ($p = .461$). To test

the indirect effect, we used Selig and Preacher's (2008) indirect effect estimator based on a Monte Carlo simulation with 20,000 replications. Results showed that the indirect effect was 0.11 with a 95% CI of [0.04, 0.18], consistent with the earlier-reported fixed effects approach.

TABLE 2.3

HLM results of within-individual analyses in three-level models

	Model 1				Model 2				Model 3			
Dependent variable Level-1 predictors	$\hat{B}$	SE	*t*-value	$\hat{\beta}$	$\hat{B}$	SE	*t*-value	$\hat{\beta}$	$\hat{B}$	SE	*t*-value	$\hat{\beta}$
Emotional Exhaustion												
Intercept	2.23**	.05	41.47		2.23**	.05	41.82					
Workload	.46**	.05	9.85	.49	.45**	.04	10.21	.48				
Social Support at Work					-.14	.08	-1.74	-.09				
Workload × Social Support at Work					-.24**	.08	-2.93	-.09				
Residual Level-1 Variance[a]	0.217				0.205							
Work-Family Conflict												
Intercept	2.09**	.07	30.55		2.10**	.07	30.53		2.08**	.07	30.48	
Workload	.12*	.05	2.46	.12	.04	.06	0.74	.05	.02	.05	0.47	.02
Emotional Exhaustion					.23**	.07	3.19	.21	.26**	.06	4.24	.23
Spousal Social Support									-.06	.06	-0.95	-.04
Emotional Exhaustion × Social Support at Home									-.44**	.18	-2.47	-.15
Residual Level-1 Variance[a]	0.32				0.271				0.25			

Note. $\hat{B}$ = unstandardized HLM coefficient. SE = standard error. $\hat{\beta}$ = standardized HLM coefficient. We replicated the models controlling for Day (time lag), Positive and Negative Affect at work and at home, and a number of level-2 variables (see 'control variables' section), but these variables were not significant predictors or did not affect the coefficients in a meaningful way. Furthermore, we tested alternative models in which social support variables were aggregated across days into level-2 variables. We did not find significant cross-level interactions. Finally, we tested competing models in which social support at home acted as a first-stage moderator and social support at work acted as a second-stage moderator. These interactions did not provide significant results.

*p < .05. **p < .01.

[a] Residual level-1 variance refers to as-yet unexplained within-individual variation in outcome scores. The level-1 variance component of the baseline (null) models was estimated at 0.319 for emotional exhaustion and 0.403 for work-family conflict.

Next, we tested our buffering hypotheses with three-level HLM models. The estimates for Model 2 for emotional exhaustion show support for Hypothesis 2, as the interaction between workload and social support at work was negative and significant (β = -.09, p = .005). Supplementary analyses revealed that this significant buffering effect could be attributed to supervisor support rather than to co-worker support. Distinguishing between these two sources[3] and adding both product terms to the level-1 equation simultaneously, we found that the interaction between workload and supervisor support was significant (β = -.10, p = .027), whereas the interaction between workload and co-worker support did not reach significance (β = -.02, p

[3] The average internal consistencies were .95 for supervisor support and .94 for co-worker support.

= .579). Hypothesis 3 was also supported by the data, as can be seen from the negative and significant coefficient for the product term Emotional Exhaustion x Social Support at Home (β = -.15, *p* = .015).

Together, these results confirm our earlier findings that (1) social support at work reduces the tendency for employees who experience higher workload to feel emotionally exhausted at the end of the workday and (2) social support at home makes individuals suffer less from the detrimental effect of emotional exhaustion on work-family conflict. Having obtained consistent results across two sets of analyses, we believe our findings are robust.

2.5 Discussion

Using the Work-Home Resources model (Ten Brummelhuis & Bakker, 2012) and the buffering model of social support (Cohen & Wills, 1985) as frameworks, the present study tested an integrative model that examined the role of specific sources of social support in the daily process by which high job demands create work-family conflict through emotional exhaustion. The findings were supportive of the hypothesized model. Results indicated that daily workload predicted work-family conflict at home. Moreover, in line with the resource perspective of the W-HR model, emotional exhaustion – as an indicator of resource depletion – mediated the relationship between daily workload and work-family conflict. Finally, we found that support at work and at home acted as buffers of the work-family conflict process within their respective domains. These findings have important theoretical and practical implications.

2.5.1 Contributions to theory

Our study contributes to theory on work and family in general and to the W-HR model more specifically. Ten Brummelhuis and Bakker (2012) aimed to open up the black box that links work and family by proposing that personal resources are the linking pins between these domains. The current experience-sampling study related workload during the day to emotional exhaustion reported at the end of the workday and to work-family conflict, and our findings are in support of the proposition of the W-HR model that "changes in energy resources are responsible for daily interference between work and home" (Ten Brummelhuis & Bakker, 2012, p. 555). As such, we believe we are among the first to provide an empirical answer to one of the questions central to the W-HR model, namely "What happens on a day when work and family roles conflict?" Moreover, Ten Brummelhuis and Bakker (2012) urged researchers to

examine the interaction between contextual demands and resources on a person's resource supply as well as the extent to which contextual resources can counterbalance resource drain. Yet the W-HR model does not explain in detail why would resources such as social support operate as buffers in the work-family conflict process. We therefore believe that our theorizing specifying why the two forms of social support can prevent strain and work-family conflict (e.g., social support at work may operate through the appraisal of high job demands as non-stressful or by making employees less reactive to them) and our findings regarding social support at work and at home (as moderators of the work-family conflict process) form a valuable extension of the W-HR model.

In terms of research design, we believe our use of experience sampling methodology is an important step forward in testing the buffering model of social support (Cohen & Wills, 1985) – and this relates to our most important theoretical contribution. We have provided a within-individual test of the buffering model of social support in the workload—emotional exhaustion—work-family conflict relationship. Although research has garnered only limited support for the buffering model (Carlson & Perrewé, 1999; Viswesvaran et al., 1999), House (1981) pointed out that the buffering role of social support is more likely to play out in short-term processes and is therefore unlikely to be found in cross-sectional studies. A similar point was made by a group of scholars who developed the Daily Interaction Record in Organizations (DIRO), a daily event-recording method that would allow for a more fine-grained analysis of the effects of social interactions by distinguishing between within-subjects and between-subjects effects (see e.g., Buunk & Peeters, 1994; Peeters, Buunk, & Schaufeli, 1995a). We also tested the buffering model using between-individual differences in social support, yet it did not yield significant results (see note to Table 2.3). This finding is consistent with our (and House's [1981]) argumentation that treating social support as a stable, time-invariant construct can mask its buffering effects on exhaustion and work-family conflict. By considering the timing of social support (and hence its volatile nature), we believe our study offers a more full-fledged and rigorous test of the buffering hypothesis as compared to most previous research.

Furthermore, our study provides an initial examination of how different sources of social support together buffer the deleterious effects of high job demands on work-family conflict. Given our proposed sequence where demands and subsequent strain from work are transferred to the family domain and undermine an individual's functioning at home, it is important to identify those forms of social support that have the potential to first reduce strain and then prevent work-family conflict. Regarding

our distinction between social support at work and at home, our results suggest that these two forms indeed have distinct functions as buffers in the work-family conflict process (i.e., preventing strain versus managing strain, respectively). However, social support at work and at home differ in their strength of buffering effects; support at work can reduce but not fully eliminate the effect of workload on emotional exhaustion, while support at home can buffer to a large extent the effect of emotional exhaustion on work-family conflict. We also distinguished between supervisors and co-workers as sources of social support in the work domain. Although previous research does not provide a strong enough foundation for arguing that one source of support is more effective than the other, we tested such differential effects on an exploratory basis and found that the supervisor was the most important work-related source of support in our sample. Our study is one of the few to examine these work-based sources of support simultaneously.

We agree with Kossek and colleagues (2011) that there is a need for theories that enhance our understanding of why different sources of support are more or less relevant and whether they can substitute for each other as buffers of stressful events. Empirically, our study indicates that social support at work and at home are complementary as buffers of the work-family conflict process, such that employees benefit from a dual social support system. First, a supportive supervisor mitigates the harmful effect of a heavy workload on emotional exhaustion so that the employee has less psychological strain to bring home. Second, a supportive spouse protects the strained employee from the detrimental consequences of emotional exhaustion on work-family conflict. The latter is a key finding of our study because most studies have emphasized the domain-specific effects of social support. According to this stream of research, spousal support is likely to impact on family-to-work conflict rather than on work-to-family conflict. Based on the results, our conclusion is that not only social support at work but also social support at home reduces work-to-family conflict.

2.5.2 Practical implications

Finding support for such dual-buffering effects has simple yet important implications. By enacting a dual social support system employees can enjoy the fulfilment associated with a full day at work as well as the long term (material) benefits of hard work, while enjoying family life after work. Furthermore, by implementing programs aimed at buffering the effects of workload, organizations can reap the productivity benefits associated with high workloads without damaging employees' family lives and incurring the associated costs. Our results suggest that direct supervisors can reduce the psychological strain caused by heavy workloads by

offering social support. In addition, our findings show that social support from a spouse plays a pivotal role in helping an individual balance the dual roles of work and family. An implication for partners is that couples must improve their understanding of each other's workload and be open in communicating their problems to each other, as this is likely to influence the willingness of providing support.

2.5.3 Limitations and future research

The use of repeated measurements with two surveys per day in both the work and family domain constitutes an important strength of our research design. Nevertheless, several limitations of the present study should be noted. First, our sample consisted of participants recruited from personal networks. Although this limits its representativeness and the generalizability of our findings, the sample was gender-balanced and shows considerable diversity in terms of other characteristics. Second, we focused on the direct (and subjective) measurement of work-family conflict and did not assess actual family outcomes. Therefore, our findings do not provide a detailed picture of the specific consequences of emotional exhaustion for family life. We also did not explore specifically how supervisors or spouses prevent employees from experiencing work-family conflict. Future research could explore (perhaps qualitatively) specific supportive behaviours from supervisors that have the potential to buffer employees from the detrimental effects of a high workload. Regarding spousal support, we suggest that future research evaluates constructs reflecting (a) energy availability at home and (b) family demands, in order to examine the extent to which a supportive spouse helps the employee replenish personal resources or reduces his or her family demands. Finally, we recommend that researchers collect spousal ratings of some of the variables in our model to validate perceptual self-reports. Our data stem from a single source and common method bias is therefore a possible limitation of our study. However, the temporal and psychological (work vs. home) separation of our evaluations should alleviate this concern, and common method bias is not an issue when testing interactive effects (Evans, 1985).

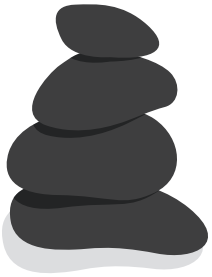
2.5.4 Conclusion

A rich set of empirical research has accumulated over the years on the effect of work factors on family life as well as on the role of social support in diminishing job strain and work-family conflict. Although this stream of research has been valuable in helping us understand what brings about work-family conflict, it falls short of

explaining the daily process through which work-related factors carry over to the family domain or how different sources of social support impact the work-family conflict process. In an attempt to advance our understanding of social support as a resource in everyday high-load situations, the present study examined intraindividual variability in social support at work and at home as moderators of the stressor–strain–work-family conflict mediation model. The data support the hypothesized buffering effects and as such suggest that enacting a dual social support system can effectively prevent high job demands from creating work-family conflict.

CHAPTER 3

The things I do for you… and for myself: A work-family study of social support provision



This chapter is based on "Pluut, H., Ilies, R., Curşeu, P. L., & Meeus, M. T. H. (under review). The things I do for you… and for myself: A work-family study of social support provision," which is being considered for publication in Organizational Behavior and Human Decision Processes at time of printing.

3.1 Introduction

Most of us adults work for a living and we have families. Working fulfils our psychological needs by making us feel competent and autonomous and also provides the means to support our families. These two life roles – work and family – have beneficial effects on our lives yet they can interfere with each other when the demands and pressures from one role are incompatible with those from the other role (Greenhaus & Beutell, 1985). Today's workforce is increasingly faced with high demands on the job (Dewe & Cooper, 2012). Work that is overly demanding can have negative effects on family life, and that is when we can draw support from our spouse or other family members to minimize such effects. In fact, much has been written on the role of social support in decreasing or preventing job stress (e.g., Van der Doef & Maes, 1999) and work-family conflict (Kossek, Pichler, Bodner, & Hammer, 2011), but virtually all of the research on these topics focused on receiving support (i.e., on the outcomes of social support for the family member receiving such support), with almost no research in the work and family literature examining support provision in the family.

In married couples, the spouse is the most important social support provider (Dakof & Taylor, 1990), and research has found many mental and physical health benefits for those who receive support from their spouse (e.g., Acitelli & Antonucci, 1994). Traditionally, women have taken on the role of homemaker and caregiver, and spousal support has therefore often been equated with wife support. However, in the context of a steady increase in dual-earner households and non-traditional gender roles over the last few decades (e.g., Bond, Galinsky, & Swanberg, 1998; Masterson & Hoobler, 2015), the traditional single wage-earner family model where the husband is the breadwinner and the wife is the homemaker has been largely abandoned. This shift towards dual-earner families has important effects – we argue – on the family support system and the ways in which social support should be studied. In dual-earner families, both spouses juggle the daily demands of work and family and are also expected to provide support to each other. Then it becomes imperative to study the determinants of support provision, including factors by which work interferes with family life, because whether receiving support enhances one's well-being and family life (as shown by previous research) is a moot point, if such support is not provided by one's spouse.

Given the many demands that they are faced with, members of dual-earner families may be rather strategic about how they invest their resources (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014). In building our conceptual model, we

therefore take a resource conservation perspective on supportive exchanges between spouses. Drawing on Conservation of Resources theory (COR; Hobfoll, 1989) and on two more specific COR models (the social support resource theory; Hobfoll, Freedy, Lane, & Geller, 1990, and the work-home resources (W-HR) model; Ten Brummelhuis & Bakker, 2012), we start from the premise that social support is a valued resource that individuals strive to obtain, retain, and protect. Yet people decide to invest social support resources (as they do with other resources, such as money) when they expect a future gain because "people are active participants in the process of gaining resources and avoiding their loss" (Hobfoll et al., 1990, p. 466). In this article, we build on the COR framework to address the strategic nature of investing social support resources in one's spouse and to better understand the mechanisms underlying resource investment in supportive behaviours.

In light of the dynamic nature of COR theory and its focus on resource fluctuation (Halbesleben et al., 2014), the current study adopts experience sampling methodology (ESM) to examine daily support provision at home. Our aim is to contribute to theory and research on social support and on work and family by developing and testing a model that specifically considers social support as a dynamic (time-varying) resource and further outlines cross-domain (work-to-family) and cross-spouse (dyadic) mechanisms explaining the occurrence of daily supportive exchanges between spouses. Moreover, in response to the emergent literature concerning the benefits of prosocial behaviors in the workplace (see e.g., Grant & Sonnentag, 2010; Sonnentag & Grant, 2012), our intended contribution extends beyond the novel conceptualization of the mechanisms explaining support provision in the family to the outcomes of social support; that is, we again take a dyadic perspective on social support to propose and test the general hypothesis that social support is not only a valued resource for the spouse receiving such support but can also lead to resource gains for the spouse who provides social support.

In essence, the thesis that we develop in this article is that work-based factors (i.e., support provider's work-family conflict and support receiver's job strain) and family-based factors (i.e., reciprocity between spouses) influence an individual's capacity and willingness to invest social support resources in his or her spouse. An examination of the determinants of support provision is particularly important because, as Granrose, Parasuraman, and Greenhaus (1992) note, "an analysis and clarification of the factors which prompt a spouse to provide support to his or her partner will enable us to move one step closer toward identifying practical ways to stimulate this exchange" (p. 1368). We further propose that providing social support enhances the personal resources of both the receiving spouse and the providing

spouse. We believe our theorizing advances the literature on social support in dual-earner families – in which work-family issues are especially relevant – by conceptualizing social support as a dyadic (interactional) construct and by examining antecedents and outcomes of social support provision concerning the self (i.e., support provider antecedents and outcomes) and the partner (i.e., support receiver antecedents and outcomes) in the dyad where social support occurs.

3.2 Theory and Hypotheses

Social support represents a critical interpersonal resource that signals that one's well-being is valued by the sources providing support (Kossek et al., 2011). Typically viewed as a global construct, social support has multiple dimensions in terms of the type of support that is provided (House, 1981). Theories on receiving social support (Cohen & McKay, 1984; Cohen & Wills, 1985) suggest that different types of support can prevent deleterious effects of demanding situations and promote beneficial outcomes. Specifically, *informational* support enables individuals to comprehend a demanding situation and cope effectively; *instrumental* support makes tangible resources available that directly aid in tackling a challenging situation or a problem; *emotional* support involves caring and gives individuals an opportunity for discussing their feelings and concerns; and *appraisal* support provides information relevant for self-evaluation.

As prior research has generated ample evidence for the notion that receiving social support influences psychological well-being and work-family conflict (e.g., Carlson & Perrewé, 1999), we believe it is now a timely matter to focus on the provider of social support and understand when social support comes to be available. In this article, we build a model of spousal support provision in dual-earner couples, and we base our reasoning and all the predictions in our model on COR theory – which essentially postulates that individuals seek to acquire, maintain, and protect valued resources – and on two more specific models derived from this theory: social support resource theory (Hobfoll et al., 1990) and the W-HR model (Ten Brummelhuis & Bakker, 2012). Social support resource theory is an application of COR theory to the interpersonal domain and it makes the case that "social support is the major vehicle by which individuals' resources are widened outside the limited domain of resources that are contained in the self" (Hobfoll et al., 1990, p. 467). The W-HR model, also a resource conservation model, conceptualizes social support as a contextual resource that leads to the development of personal resources.

These theories provide complementary perspectives on social support that form the basis of our study. Due to its interpersonal focus, social support resource theory underlines that social support is an exchange of resources in personal relationships. Within the context of spousal support, it suggests that scholars should study both the provider and the receiver (e.g., one spouse may need and ask for help but the other spouse cannot give support) and focus on the dyad (couple) as the unit of analysis. The W-HR model adds a temporal aspect to supportive exchanges by conceptualizing social support as a rather volatile and transient resource offered by others. Moreover, this model considers work and family as interconnected domains that influence each other, thus suggesting that work demands impact support provision (or the personal resources that are needed for support provision) in the family domain. Together, these models provide an integrative theoretical framework for examining the state-like nature of supportive exchanges and how the work domain influences such dyadic exchanges in the family domain.

On a daily basis, dual-earner couples juggle the demands of their jobs while trying to enjoy family life and be supportive spouses for each other. Both job demands and involvement in family activities are known to vary substantially from day to day (e.g., Ilies et al., 2007), meaning that the challenge of being a supportive spouse is also time varying. This calls for within-individual research designs, yet work-family research on the antecedents or outcomes of (various forms of) social support has mostly examined between-individual differences in social support (e.g., Carlson & Perrewé, 1999; Kossek et al., 2011; Michel, Mitchelson, Pichler, & Cullen, 2010). Yet between-individual studies cannot adequately capture the day-to-day processes linking work to family and, perhaps more importantly, such studies cannot examine the dynamic resource cycles inherent to COR theory (Halbesleben et al., 2014). We adopt experience sampling methodology in order to capture the everyday experiences of dual-earner couples (see Laurenceau & Bolger, 2005) and their day-to-day resource investment decisions (see Halbesleben & Wheeler, 2015). This approach will help explain why spouses provide support to each other on some days but not on other days. Furthermore, we can examine how fluctuating levels of spousal support influence the daily well-being of both partners (that is, the receiver as well as the provider of social support).

3.2.1 Determinants of daily support provision

The W-HR model proposes that contextual work demands, such as work overload or high emotional demands, diminish family outcomes through a loss of personal resources (Ten Brummelhuis & Bakker, 2012). When personal resources are

depleted, the provision of social support between spouses may be impaired because providing social support entails substantial resource costs. Helping behaviours are seen as resource investments (Halbesleben & Wheeler, 2011; Halbesleben & Wheeler, 2015) and the availability of resources for the provider is therefore considered a critical factor for support provision in dual-earner couples (Granrose et al., 1992). An overloaded employee may not have the resources available that are required to be a supportive spouse. For instance, burned-out employees tend to lose their capacity to feel empathy (Maslach, 1982), ultimately influencing their support provision. Specifically relevant to our study, it has been argued that time-based and strain-based work-family conflicts make it difficult for employees to show supportive behaviours towards their spouse (Adams, King, & King, 1996; Granrose et al., 1992).

Work-family conflict reflects a situation in which provider resources (time and energy) are limited (Ten Brummelhuis & Bakker, 2012) and this lack of resources may hinder support provision in two ways. On a demanding day, drained employees are less willing to attend to their spouse's needs and instead are more egocentrically motivated to conserve their already diminished resources (Halbesleben et al., 2014). Furthermore, work interference with family limits one's ability to read the spouse's need for support or to actually engage in supportive behaviours (Iida, Seidman, Shrout, Fujita, & Bolger, 2008). Thus, increased work-family conflict, as an indicator of high job demands, is associated with diminished personal resources at home, and when their resources are diminished, employees are less able (they lack resources) or willing (they protect their already diminished resources) to provide social support to their spouse.

> *Hypothesis 1:* On days when employees experience high work-family conflict, they provide less spousal support, compared to days when they experience low work-family conflict.

We further expect that the recipient's level of job strain constitutes a determinant of support provision because this signals the need for support. As we have noted, the provision of social support can become a drain on an individual's personal resources. Resource theory (Hobfoll, 1989; Hobfoll et al., 1990) specifies that provider resources are finite and people invest resources strategically. A strategic investment of resources implies that support is more likely to be provided when support provision is likely to generate resources for the self (Halbesleben & Wheeler, 2015). Thus, in order to facilitate the conservation of resources, individuals are likely to enact supportive behaviours towards spouses especially when spouses are in need because that is when social support will matter most for the recipient and thus

providers can expect a greater payoff in terms of future resources. In our study, we focus on recipient's emotional exhaustion caused by a demanding day at work as a signal that social support is needed.

Of course, the recipient's level of distress elicits social support also through prosocial motivations and sensitivity to the other person's needs (as suggested by Dunkel-Schetter and Skokan, 1990, or Iida and colleagues, 2008). However, recent research on the motivations underlying organizational citizenship behaviours has argued that such resource investments are made predominantly with the intention to acquire resources in the future (Halbesleben & Wheeler, 2015; Halbesleben & Bowler, 2007). Similarly, we expect that recipient's emotional exhaustion influences provider's willingness to show supportive behaviours because providing support to a strained spouse will increase the likelihood of resource gains for the support provider. Emotional exhaustion indicates resource depletion and thus suggests that social support is a valued resource for the support recipient. As such, the provision of social support to a depleted spouse is a careful and selective investment of (remaining) resources; not only will it almost certainly enhance the well-being of the recipient, but a spouse in need is also particularly likely to notice and appreciate the support and will therefore be more willing to return the favour.

> *Hypothesis 2:* On days when the spouse experiences high emotional exhaustion, employees provide more spousal support, compared to days when the spouse experiences low emotional exhaustion.

The previous discussion suggests that spouses tend to develop reciprocal resource gain spirals (where resources produce other resources); that is, a spouse provides social support when needed and receives social support in return. Social support in dual-earner couples is in essence an exchange of resources between spouses (Hobfoll et al., 1990) and the perceived balance in terms of give and take represents a relationship factor that is likely to influence the provision of spousal support (Dunkel-Schetter & Skokan, 1990; Granrose et al., 1992). First, receiving spousal support leads to feeling satisfied about the relationship and makes spouses more committed to the family (Granrose et al., 1992), which in turn increases the willingness to provide support (Verhofstadt, Buysse, Devoldre, & De Corte, 2007). Second, according to reciprocity theory, spouses tend to feel a sense of obligation (and maybe even indebtedness) when they have been on the receiving end of supportive exchanges (Shumaker & Brownell, 1984), as generally people return the benefits they receive from others (Knoll, Burkert, & Schwarzer, 2006).

The COR framework adds a strategic element to reciprocity (Halbesleben & Wheeler, 2015) by emphasizing that the willingness to invest social support resources is strongly driven by the motivation to enrich one's social support resource pool and secure ongoing social support. Although norms of reciprocity are oftentimes less salient in intimate relationships (as opposed to with more distant friends or family members), it goes without saying that caring for a spouse is not unconditional; an imbalance in resource exchanges will eventually harm the relationship quality of dual-earner couples (Brock & Lawrence, 2008; Gleason, Iida, Bolger, & Shrout, 2003). Therefore, individuals who have received social support are motivated to reinvest social support resources so as not to unbalance their sense of reciprocity or threaten the support relationship (Halbesleben & Wheeler, 2011). In support of the reciprocity hypothesis, research using between-individual as well as within-individual designs showed that providers are more likely to give spousal support when they feel that the recipient has supported him or her (Iida et al., 2008; Knoll, Burkert, Luszczynska, Roigas, & Gralla, 2011). Thus, we predict that support provision is more likely when the providing spouse has received social support him or herself on that day.

> *Hypothesis 3:* On days when employees receive more social support from their spouse, they provide more spousal support, compared to days when they receive less social support.

3.2.2 Dual outcomes of support provision

Supportive exchanges between spouses are critical for the well-being of individuals. There is no doubt that this effect can (at least partly) be attributed to the benefits associated with receiving support. Theory on social support (Cohen & Wills, 1985; House, 1981) states that receiving social support can directly enhance well-being because it provides positive affect and a sense of self-worth and it fulfils psychological needs for affection, belonging, and appreciation. This is also in line with a resource perspective on receiving social support. The W-HR model (Ten Brummelhuis & Bakker, 2012) and social support resource theory (Hobfoll et al., 1990) propose that the receipt of social support will result in the development of personal resources (e.g., puts the receiver in a good mood) and as such enhances the recipient's well-being. Consistent with the main-effect model of social support (Cohen & Wills, 1985), research has reported beneficial effects of social support on marital and family satisfaction (Acitelli & Antonucci, 1994; Parasuraman, Greenhaus, & Granrose, 1992) as well as life satisfaction (Adams et al., 1996).

Social support signals concern for the spouse's well-being and therefore makes the recipient feel loved and cared for (Acitelli, 1996; Cutrona, 1996). Within-individual research has shown that compassionate acts boost the spouse's daily marital satisfaction (Reis, Maniaci, & Rogge, 2013), perhaps through facilitating the enactment of personal goals (Brunstein, Dangelmayer, & Schultheiss, 1996) or by making the spouse feel closer to the provider (Weinstein & Ryan, 2010). Although life satisfaction has been examined less often as an outcome in this context, research has found that receiving social support – especially from the spouse – can increase life satisfaction (Wan, Jaccard, & Ramey, 1996). Thus, we expect that social support does not only serve a relationship-enhancing function but will also lead to more positive evaluations of life in general for the recipient.

> *Hypothesis 4a:* On days when employees provide more spousal support, their spouses experience higher relationship satisfaction, compared to days when they provide less spousal support.
>
> *Hypothesis 4b:* On days when employees provide more spousal support, their spouses experience higher life satisfaction, compared to days when they provide less spousal support.

Yet the benefits of social support are not exclusively reserved for the recipient. More recently, some research has shifted attention from the receiver to the provider of support and examined whether and how prosocial behaviors could also benefit the helper (e.g., Grant & Sonnentag, 2010; Sonnentag & Grant, 2012). Brown and colleagues (2003) even suggested that the often-reported benefits of supportive exchanges are more closely associated with giving rather than receiving support. These authors found that providing emotional support to the spouse was associated with lower mortality whereas receiving such support was not. The benefits of social support may also reflect a conjoint effect of providing and receiving support. In taking on a dyadic view of social support, Jensen, Rauer, and Volling (2013) argued that spouses continually shift between the roles of provider and recipient and they found that the benefits of spousal support (more marital love and reduced marital conflict) were explained by both providing and receiving support.

Why would providing spousal support yield benefits for the provider? According to self-determination theory, helping behaviours satisfy our basic psychological needs (i.e., competence, relatedness, and autonomy) and as such foster well-being in the helper (Weinstein & Ryan, 2010). Moreover, helping another person is mood-enhancing (negative-state relief hypothesis; Cialdini, Darby, &

Vincent, 1973), reduces aversive arousal (promotive-tension thesis; Hornstein, 1982), and helps to enhance or recover self-esteem (esteem-enhancement models; Brown & Smart, 1991), thereby leading to the build-up of personal resources. Indeed, social support resource theory argues that – although support provision requires a sufficient amount of personal resources – the act of providing support can replenish and produce personal resources, as "it may increase their [i.e., providers'] feeling of self-esteem, mastery, meaningfulness and belongingness" (Hobfoll et al., 1990, p. 474), and those personal resources should increase providers' well-being.

Consistent with these theoretical arguments, empirical investigations have shown that providing spousal support – even if it is not reciprocated – is associated with improved health and psychological well-being (Liang et al., 2001; Väänänen, Buunk, Kivimäki, Pentti, & Vahtera, 2005). Furthermore, mood effects of support provision have repeatedly been reported (Gleason et al., 2003; Knoll, Kienle, Bauer, Pfüller, & Luszczysnka, 2007) as well as more positive self-evaluations and enhanced self-esteem for the support provider (Krause & Shaw, 2000; Williamson & Clark, 1989). Also, giving support increases commitment to the receiver (Grant, Dutton, & Rosso, 2008) and tends to be followed by positive reinforcements because social support fosters intimacy, trust, and liking in the relationship (Halbesleben & Wheeler, 2015), thus infusing spousal interactions with positive affect. All in all, doing good makes you feel good (Glomb, Bhave, Miner, & Wall, 2011), and we therefore expect that the daily provision of spousal support results in more positive evaluations both regarding the relationship and life in general.

Hypothesis 5a: On days when employees provide more spousal support, they experience higher relationship satisfaction, compared to days when they provide less spousal support.

Hypothesis 5b: On days when employees provide more spousal support, they experience higher life satisfaction, compared to days when they provide less spousal support.

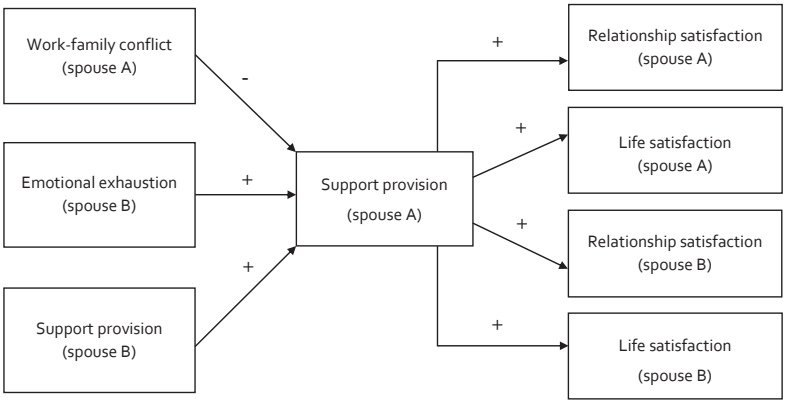
3.3 The Current Study

It is the goal of the current study to test a model of determinants and consequences of daily support provision in dual-earner couples. We use data from a longitudinal, repeated-measures study to examine the influence of work-based and family-based factors on supportive behaviours in the family domain. The overall conceptual model (depicted in Figure 3.1) is anchored in the work-home resources

model (Ten Brummelhuis & Bakker, 2012) and social support resource theory (Hobfoll et al., 1990). On the basis of these COR frameworks, we argue that (a) support provision is constrained by provider resources because providers are motivated to conserve their personal resources, (b) social support resources are more likely to be invested when the recipient is in need of support, (c) norms of reciprocity are drivers of support provision, and (d) social support is an interpersonal resource that has the potential to enhance the personal resources and subsequent well-being of both the provider and the receiver of support.

FIGURE 3.1

A model of spousal support provision in dual-earner couples



3.3.1 Intended contribution

Our intended contribution is three-fold. First and foremost, we seek to advance theory on social support in dual-earner couples by using resource-based frameworks to develop a model that focuses on spousal support provision (i.e., social support resource investments in one's spouse) and proposes antecedents and outcomes of support provision that reflect the dyadic nature of social support in couples. Second, following theory on the effects of daily demands and resources across the work-family boundary (Ten Brummelhuis & Bakker, 2012), we conceptualize and measure social support as a volatile resource that is exchanged between dyad partners differently from one day to another (i.e., social support fluctuates from day to day). In accordance with this time-varying conceptualization of social support, we examine relationships of social support provision with antecedents and outcomes *within* couples (across days), thus focusing on the couple as the unit of analysis to fully capitalize on the dyadic nature of our data. Third, our assessment methodology and

corresponding analyses have been specifically selected to reflect the fluctuating nature of the constructs and the dynamic nature of the relationships as proposed in our conceptual model, while minimizing methodological threats to the validity of the findings (e.g., common rater bias) by measuring constructs from two sources (the two members of the couple) and in two psychological environments (work and home). Below we describe an ESM study designed to pursue these contributions.

3.4 Method

3.4.1 Sample and procedure

Data for the study were collected as part of a larger experience-sampling project among dual-earner couples in the Netherlands. The authors collaborated with a number of undergraduate students to recruit working couples from their personal networks. In order to qualify for participation in the study, couples needed to be married or cohabiting dual-earners. We required that both partners filled out twice-daily surveys (only on workdays) over a period of up to two weeks. Sixty-four dual-earner couples (128 individuals) agreed to participate in the study. Our sample consisted exclusively of opposite-sex couples and was therefore gender-balanced. Descriptive statistics indicated that, on average, couples had been in a relationship for 16.8 years and had been living together for 14.8 years. The mean number of children living at home was one. The average age of the participants was 39.6 years (ranging from 23 to 63). The sample included both part-time and full-time workers, with a mean of 33.5 actual working hours a week. Participants held jobs in a variety of sectors, such as healthcare, education, research, and information technology. More than half of the participants attained a higher education degree (40.2% higher vocational training and 20.2% university education).

Before the start of the daily survey period, both members of each couple responded to a general one-time survey that assessed demographic variables. Then, participants were instructed to respond to one daily survey at work and one daily survey at home. Couples were asked not to discuss the questions or their answers with each other and to fill out all surveys individually. Only a few respondents opted for hardcopy surveys. They were sent a packet containing two weeks of daily surveys and the researchers retrieved this packet at the end of the study. Most respondents filled out the surveys digitally; they received e-mails with links to the surveys twice a day. The first survey was administered at work and respondents were instructed to complete it towards the end of their workday. This survey evaluated work-related constructs such as job demands, work affect, and emotional exhaustion. The second

survey was administered daily at home and assessed spousal support provision, home affect, work-family conflict as well as relationship and life satisfaction. Respondents were instructed to complete the home survey about an hour before they went to bed. All surveys contained a time stamp so that we were able to check whether respondents filled them out at the appropriate times.

Because at least two daily records were required for each respondent in order to test within-individual relationships, we had to exclude 12 respondents from the final sample due to insufficient data. Moreover, in order to have data from both members of each couple, we had to further exclude six respondents whose spouses did not provide sufficient data. The remaining 110 participants provided a total of 778 daily records, with an average of 7.07 daily records per person (*SD* = 2.04 days) out of a maximum of 9 days (a national holiday was part of the two-week experience-sampling period).

3.4.2 Measures

Emotional exhaustion. To measure emotional exhaustion, we selected five items from the emotional exhaustion subscale of the Maslach Burnout Inventory (Maslach & Jackson, 1981). This measure was modified slightly to reflect the daily nature of the surveys. Our scale included items such as "Today, I feel emotionally drained from my work" and "Today, I feel like I'm too tired to face another day on the job." Responses were given on a Likert scale from 1 = *strongly disagree* to 5 = *strongly agree*. The scale was part of the at-work survey and had an average Cronbach's alpha of .90 across days.

Work-family conflict. Work-family conflict was assessed as part of the home survey using the Work-Family Conflict Scale developed by Netemeyer, Boles, and McMurrian (1996). This measure consists of five items that we modified slightly in order to focus on daily evaluations. Each evening, the respondents indicated the extent to which their work had interfered with their family life that day on items such as "Today, the demands of my work interfered with my home and family life" and "Today, my job produced strain that made it difficult to fulfil family duties." The answers were recorded on a five-point Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. Across days, the average internal consistency was .92.

Spousal support provision. In order to measure the provision of spousal support, we asked respondents to indicate each evening the extent to which they had provided support to their spouse. In light of the lack of measurement instruments for assessing social support from the perspective of the provider, the instrument used in this study was adapted from scales measuring the receipt of social support. We

examined scales that have been widely used in research on social support (e.g., FSIW by King, Mattimore, King, & Adams, 1995; MSPSS by Zimet, Dahlem, Zimet, & Farley, 1988; SIRRS by Barry, Bunde, Brock, & Lawrence, 2009) to get insight into specific supportive behaviours in the family domain. Our instrument consisted of 15 items that referred to widely studied types of social support (House, 1981), namely emotional support (e.g., "I asked my partner about his/her day"), instrumental support (e.g., "My partner could depend on me to help out with things at home"), and informational support (e.g., "I gave advice to my partner about a problem"). Respondents indicated their agreement with the statements using a 5-point Likert scale with anchors 1 = *strongly disagree* to 5 = *strongly agree*. The average Cronbach's alpha across days was .89 for the spousal support provision scale.

Relationship and life satisfaction. We evaluated relationship satisfaction with the five-item Quality Marriage Index developed by Norton (1983). As not all working couples in our sample were married, we refrained from using the term 'marriage' and rather referred to their relationship in general. Respondents were requested to indicate their agreement (1 = *strongly disagree*, 5 = *strongly agree*) with statements such as "Right now, I feel that I have a good relationship" and "At this moment, I feel that my relationship with my partner is very stable." We measured life satisfaction using the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985). Respondents were asked to respond to five items (e.g., "In most ways my life is close to my ideal") based on how they were feeling about it at that very moment. Responses were recorded on a five-point Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. The average (across days) internal consistency reliabilities for the satisfaction scales were .93 (relationship satisfaction) and .88 (life satisfaction).

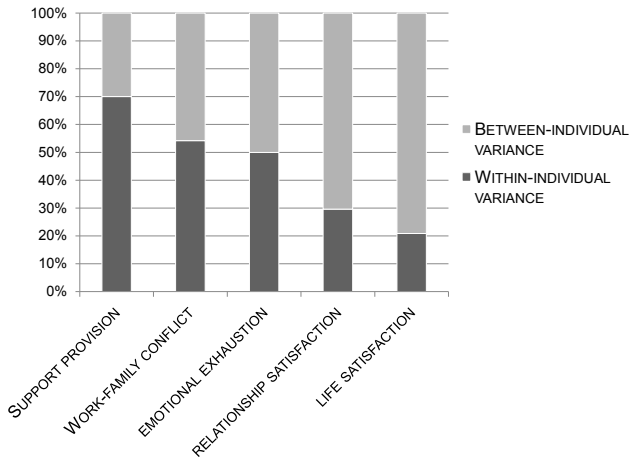
Positive and negative affect (PA and NA). As social support may be affected by the provider's mood (Iida et al., 2008) and because emotions and moods are related to satisfaction states (Judge, Ilies, & Scott, 2006), we decided to include state affect at home as a control variable. We measured home affect in the evening with five positive adjectives (e.g., "interested" and "excited") and five negative adjectives (e.g., "upset" and "irritable") from the Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988). Respondents were asked to indicate the extent to which they felt each of the adjective descriptors at that very moment (1 = *very slightly or not at all*, 5 = *extremely*). The average Cronbach's alpha for the home affect scale was .86 for PA and .79 for NA across evening measurements.

3.4.3 Analyses

The use of repeated measurements enables us to examine day-to-day variation in the study variables. Before conducting multilevel analyses, we partitioned the total variance of each variable in between-individual and within-individual variance components. Figure 3.2 shows the proportion of variance in each construct score that is attributable to Level 1 (within-individual variance) and Level 2 (between-individual variance). Estimation of null models (no predictors) revealed that the percentage of variance in construct scores due to within-individual (day-to-day) variation ranged from 20% (life satisfaction) to 70% (spousal support provision). Overall, these findings justify our within-individual analysis approach.

FIGURE 3.2

Reported variance for null models



To test our within-individual hypotheses, we used hierarchical linear modelling (HLM; Bryk & Raudenbush, 1992). The HLM approach is appropriate in this situation because our data have a nested structure, with days (Level 1; n = 778) nested in individuals (Level 2; n = 110) within couples (Level 3; n = 55). We therefore estimated three-level models. At the first level, the daily outcome variables are regressed on the daily predictor variables. The level-2 models estimate the pooled intercept and slope(s) across the individuals in the sample. In all of the analyses, we specified random intercepts–random slopes models at level 2 to account for differences in slopes across individuals. The level-2 intercept was allowed to vary randomly across couples to control for dependency within level-3 units. We centred the level-1 predictor variables at each individual's mean across days so that scores represented

departures from the respondent's mean. This centring approach (see also Ilies et al., 2007) controls for differences between individuals; as such, the estimates obtained from HLM represent unconfounded within-individual effects.

We supplemented our analysis of the data with the actor-partner interdependence model (APIM; Kenny, Kashy, & Cook, 2006). APIM analyses focus on the influence of one person on the other person, thus taking the dyad as the unit of analysis. It provides an appropriate context for testing our conceptual model because spousal support provision is inherently a dyadic phenomenon. Our study is based on a reciprocal dyadic data structure, with daily observations collected from both members of the dual-earner couple. As a dyadic data-analytic method, the APIM allows for the simultaneous estimation of both *actor effects* (how a person's characteristics predict his or her own outcome) and *partner effects* (how a partner's characteristics predict a person's outcome). It also enables us to explore gender differences in the relationships that we study because actor and partner effects are estimated for both members of the dyad (that is, for men and women separately). For this set of analyses, we specified 2-level HLM models with days nested within couples and level-1 predictors centred relative to individuals' means (see Laurenceau & Bolger, 2005).

3.5 Results

TABLE 3.1

Descriptive statistics and bivariate correlations

Variable	*M*	*SD*	1	2	3	4	5	6	7	8
1. Work-family conflict (self)	2.10	.64	–	.11*	-.01	-.24*	-.12*	-.03	-.08	-.04
2. Emotional exhaustion (spouse)	2.22	.61	-.04	–	.00	.05	-.08	-.08	-.03	.02
3. Support provision (spouse)	3.21	.35	.05	.02	–	.20*	.31*	.15*	.19*	.09*
4. Support provision (self)	3.21	.35	-.19*	.04	.21*	–	.19*	.09*	.31*	.15**
5. Relationship satisfaction (spouse)	3.97	.63	-.06	-.14	.41*	.29*	–	.31*	.28*	.08*
6. Life satisfaction (spouse)	3.63	.63	-.14	-.16	.14	.09	.52*	–	.08*	.06
7. Relationship satisfaction (self)	3.97	.63	-.18	-.09	.29*	.41*	.67*	.41*	–	.31**
8. Life satisfaction (self)	3.63	.63	-.07	-.23*	.09	.14	.41*	.48*	.52*	–

Note. Means (*M*) and standard deviations (*SD*) are between-individual descriptive statistics. The correlations below the diagonal represent between-individual associations, which are calculated based on individuals' aggregated scores (*N*s = 106 to 110, pairwise). The correlations above the diagonal represent within-individual associations and are calculated using the group-mean centred scores (*N*s = 443 to 775, pairwise).

*p < .05. **p < .01.

Table 3.1 presents the descriptive statistics and the correlations (between- and within-individual associations) among all of the variables in our conceptual model (see Figure 3.1). Across individuals, it can be seen that spouses' average daily reports of support provision were positively correlated (r = .21, p = .031). In addition, we found strong correlations between husbands' and wives' average daily scores for relationship satisfaction (r = .67, p < .001) as well as for life satisfaction (r = .48, p < .001). This pattern of results shows that scores are linked within couples (i.e., are not independent).

Table 3.2 presents the results of the within-individual analyses in three-level HLM models. We first of all hypothesized that three daily variables would be independently related to daily support provision: provider's work-family conflict, recipient's emotional exhaustion, and provider's receipt of social support. For the latter variable, we used the spouse's report of support provision, which eliminates same-source bias. In support of Hypothesis 1, we found that on days when employees experienced more work-family conflict, they provided less social support to their spouse (β = -.19, p = .005). Hypothesis 2 also received support, as emotional exhaustion scores reported by spouses at the end of their workday predicted employees' level of support provision in the evening (β = .12, p = .031). Finally, support provision by the spouse was significantly associated with support provision by the employee (β = .20, p = .002), which is in support of Hypothesis 3.

We furthermore predicted that support provision would enhance the well-being of the support receiver in terms of relationship satisfaction and life satisfaction. In support of Hypothesis 4a, the results indicated that employees' reports of support provision predicted spouses' relationship satisfaction (β = .19, p < .001). However, Hypothesis 4b was not supported, in that support provision did not have a significant effect on spouses' life satisfaction (β = .08, p = .131). Hypothesis 5 predicted that support provision would positively influence the provider's level of relationship and life satisfaction. The results supported these predictions. On days when employees provided more spousal support, they reported higher levels of relationship satisfaction (β = .31, p < .001) as well as life satisfaction (β = .11, p = .023), compared to days when they provided less social support to their spouse. Thus, Hypothesis 5a and 5b were supported by the data.

TABLE 3.2

HLM results of three-level models

Dependent variable Level-1 predictor(s)	$\hat{B}$	SE	*t*-value	$\hat{\beta}$
Support provision				
Intercept	3.22***	.04	80.43	
Work-family conflict	-.14**	.05	-2.86	-.19
Spouse's emotional exhaustion	.09*	.04	2.18	.12
Spouse's support provision	.20**	.06	3.19	.20
Spouse's relationship satisfaction				
Intercept	3.97***	.08	50.83	
Support provision	.17***	.04	3.85	.19
Spouse's life satisfaction				
Intercept	3.62***	.07	49.85	
Support provision	.06	.04	1.52	.08
Relationship satisfaction				
Intercept	3.96***	.08	50.89	
Support provision	.27***	.05	5.63	.31
Life satisfaction				
Intercept	3.63***	.07	49.96	
Support provision	.08*	.03	2.30	.11

Note. $\hat{B}$ = unstandardized HLM coefficient. SE = standard error. $\hat{\beta}$ = standardized HLM coefficient. All level-1 predictor variables were centred at individuals' means to eliminate between-individual variance.

*p < .05. **p < .01. ***p < .001.

3.5.1 Supplemental results

Some of the hypotheses that we tested involved variables that were rated by the same source (i.e., WFC – support provision and support provision – provider's relationship and life satisfaction). Thus, results could suffer from a same-source bias, in that momentary mood may have confounded the reported coefficients. To address this issue of common method variance, we performed supplemental analyses in which we controlled for positive and negative affect (measured at home) for the same-source relationships. The results indicated that the earlier reported findings are robust. Controlling for momentary mood, work-family conflict was still a significant predictor of support provision (β = -.17, p = .013), and the effects of support provision on providers' levels of relationship satisfaction (β = .28, p < .001) and life satisfaction (β = .09, p = .043) remained significant.

As a final step, we decided to further analyse our data using actor-partner interdependence modelling because our conceptual model incorporates both actor and partner effects. That is, our hypotheses regarding the outcomes of spousal support provision stated that a person's supportive behaviours would influence both one's own satisfaction and the spouse's satisfaction. Here, actor-partner interdependence modelling provides an important complement to our earlier analyses because it enables us to (a) estimate two outcomes (i.e., actor's and

partner's satisfaction) simultaneously and (b) test for gender differences in these actor and partner effects. The APIM analyses are reported in Table 3.3.

TABLE 3.3

Actor-Partner Interdependence Model of spousal support provision

Dependent variable Actor or partner effect	$\hat{B}$	SE	*t*-value
Relationship satisfaction			
Intercept for husbands	3.93***	.09	44.60
Intercept for wives	4.00***	.09	44.32
Husband's support provision → own relationship satisfaction	.26***	.06	4.73
Wife's support provision → own relationship satisfaction	.22*	.08	2.61
Husband's support provision → wife's relationship satisfaction	.13**	.05	2.85
Wife's support provision → husband's relationship satisfaction	.09	.05	1.79
Life satisfaction			
Intercept for husbands	3.66***	.07	49.75
Intercept for wives	3.55***	.10	35.42
Husband's support provision → own life satisfaction	.16***	.04	4.39
Wife's support provision → own life satisfaction	.03	.07	0.36
Husband's support provision → wife's life satisfaction	.05	.06	0.86
Wife's support provision → husband's life satisfaction	.01	.03	0.23

Note. $\hat{B}$ = unstandardized HLM coefficient. SE = standard error. All level-1 predictor variables were centred at individuals' means to estimate within-individual effects.

*p < .05. **p < .01. ***p < .001.

The model for relationship satisfaction showed that actor effects were significant for both men (B = .26, p < .001) and women (B = .22, p = .012), meaning that husbands' and wives' reports of their spousal support provision predicted their own level of relationship satisfaction, in support of Hypothesis 5a. With respect to partner effects, our earlier results indicated that support provision influenced the spouse's level of relationship satisfaction. However, APIM analyses showed that this partner effect was dependent on gender. More specifically, only women reported higher relationship satisfaction on days when their spouse provided social support (B = .13, p = .007), while men did not benefit from a supportive spouse in terms of their relationship satisfaction (B = .09, p = .079). Thus, Hypothesis 4a was only supported for female members of dual-earner couples.

We next estimated the APIM with life satisfaction as an outcome for both members of the dyad. Although our previous set of analyses indicated that support provision influenced one's own level of life satisfaction, APIM results pointed to gender differences in this actor effect. More specifically, only men reported higher

life satisfaction on days when they provided spousal support (B = .16, p < .001). Women did not benefit from providing spousal support in terms of their life satisfaction (B = .03, p = .719), implying that Hypothesis 5b was only supported for male members of dual-earner couples. APIM estimates for partner effects were consistent with our earlier results, as we did not find a significant impact of an actor's support provision on a partner's life satisfaction (B = .01, p = .823 for the effect on husbands; B = .05, p = .392 for the effect on wives), resulting in the rejection of Hypothesis 4b.

3.6 Discussion

The relationship between social support and the well-being of individuals has received a great deal of attention in previous organizational studies. This stream of research has been characterized by an interest in the benefits of receiving social support and considerable effort has been directed towards understanding the different ways in which social support can reduce stress (Van der Doef & Maes, 1999) and work-family conflict (Carlson & Perrewé, 1999; Michel et al., 2010). Yet the almost exclusive focus on the recipient of social support has limited our understanding of the dynamics surrounding support provision in the family. In this paper, we examined the determinants of support provision as well as the benefits associated with social support in dual-earner couples.

In accordance with our consideration of social support as a dyadic and dynamic construct, we were interested in explaining daily fluctuations in support provision within couples over time as opposed to explaining differences between couples. The hypotheses were therefore tested as within-individual effects. We distinguished between work-based (i.e., provider's work-family conflict and recipient's emotional exhaustion) and family-based (i.e., reciprocity) determinants of daily support provision and found support for all three predictors. Then, using theories regarding the benefits of receiving social support (Cohen & Wills, 1985; House, 1981), we proposed that spousal support explains day-to-day variation in the relationship and life satisfaction of the recipient. Drawing on theories regarding the benefits of providing social support (see Batson, 1998), we further hypothesized that the act of providing support to one's spouse enhances one's own well-being in terms of relationship and life satisfaction. Our findings indicated that daily social support positively affected the relationship satisfaction – but not life satisfaction – of the receiving spouse, while supportive behaviours benefitted the providing spouse through enhanced relationship satisfaction as well as life satisfaction.

When we put our results together, it follows that investment of social support resources in one's spouse is a complex process. On the one hand, supportive behaviours are resource depleting and are thus less likely to be enacted when resources are already low (as is the case when one experiences heightened work-family conflict) and when the spouse is not in need of social support (i.e., is not emotionally exhausted). On the other hand, supportive behaviors can also lead to resource gains for the provider, in the form of enhanced well-being and through reciprocated support. We agree with Halbesleben and Wheeler (2015) that "COR potentially explains complex dyadic resource investment processes" (p. 1644), as the COR frameworks guiding our research illuminated the resource cycles of loss and gain inherent to social support in dual-earner couples.

In essence, the conceptual model tested in this paper constitutes an actor-partner interdependence model (Kenny et al., 2006). First, our results regarding the determinants of spousal support provision indicated that each individual's support provision was a function of that person's own work-family conflict (actor effect) as well as the spouse's emotional exhaustion and support provision (partner effects). Second, an employee's satisfaction was influenced by his or her own support provision and also by the spouse's acts of support provision. Our results showed that support provision mostly had a relationship-enhancing function. Life satisfaction, however, is not a dyadic construct conceptually and indeed seems (from our results) less relevant to be studied in dyadic contexts (i.e., we did not find significant partner effects for this outcome).

In our examination of the outcomes of spousal support provision using actor-partner interdependence modelling, we have detected gender differences, in that (a) only women showed enhanced relationship satisfaction when their spouse provided social support and (b) only men felt more satisfied with their lives when they provided spousal support. It may be that the idea of 'caregiver' is still more salient for women than for men, despite the decline of traditional gender norms. When a husband provides support to his wife, his behaviours exceed socialized support expectations. We believe this "doing more than expected" argument may explain why the benefits of spousal support provision were higher when the provider of social support was the husband (and not the wife). Evidently, further research is needed on how and why benefits of providing and receiving spousal support differ across gender.

3.6.1 Contributions to theory

Our conceptual model was grounded in a resource conservation perspective (the W-HR model of Ten Brummelhuis & Bakker, 2012, and the social support

resource theory of Hobfoll et al., 1990) on supportive exchanges between spouses in dual-earner couples. Our study set out to address a number of issues raised by these theories that prior research has mostly overlooked. First, general resource conservation theory is focused on the acquisition, protection, and investment of valued resources for the benefit of *oneself* (Hobfoll, 1989), yet social support resource theory suggests that, in married or cohabiting couples, social support – an important resource that is exchanged between the two members of the couple – can be conceptualized at the dyadic level and its provision can be optimized to benefit the well-being of the couple. In order to capture this dyadic aspect, we focused on both the provider and the receiver in our examined outcomes of spousal support provision. The results indicated that supportive exchanges lead to resource gains for the support provider and support receiver in the form of enhanced well-being for both spouses. We suggest that future research examines the dynamics of dyadic support in further detail and focuses on the couple's joint well-being.

Second, the W-HR model conceptualizes social support as a volatile resource that is exchanged within couples on a daily basis, and we have therefore conceptualized (and measured) social support provision as a time-varying construct and examined its within-couple (across-days) relationships with the antecedents and outcomes considered in our study. The W-HR model also specifies how demands and resources in the work and family domains are interconnected, thereby providing a conceptual basis for our examination of the influence of work factors on support provision at home. Our findings showed that support provision indeed fluctuates depending on the provider's and receiver's level of personal resources (as reflected in work-family conflict and emotional exhaustion, respectively) and further enhances the well-being of both spouses, probably by facilitating the development of personal resources (e.g., mood, self-esteem, et cetera). Taken together, we consider the above features (i.e., cross-spouse and dyadic relationships, temporally dynamic conceptualizations, and effects across the work-family boundary) important advancements of theory on social support as it applies to dual-earner couples and to the work-family interface.

In our analysis of the well-being outcomes of social support for the receiving spouse, we relied on providers' reports of supportive behaviours (as opposed to recipients' perceptions of being supported). This constitutes an important contribution of our study because the perspective of the recipient has been prevailing in research on the benefits of receiving social support. That is, scholars have focused on recipients' reports of received support or perceived availability of social support. Because the process of social support starts with the provider, whose

supportive behaviours are generally intended to enhance the well-being of the recipient (Shumaker & Brownell, 1984), we believe it is equally important to take on the perspective of the provider and examine directly whether his or her supportive behaviours have their intended positive influence on the well-being of the recipient. This is particularly relevant given that support is in the eye of the beholder (Reis et al., 2013). We therefore suggest that future research collects data on both recipients' and providers' perceptions of the support exchange. If, for instance, the provider is able to give support but the spouse cannot or is not willing to receive it, this can also be designated as a resource drain within couples.

Although supportive behaviours are usually enacted with the intention to help the recipient, our findings (in particular from the APIM analyses) indicated that social support had stronger beneficial effects for the providing spouse than for the receiving spouse (that is, actor effects were stronger than partner effects). It should be noted, however, that our pattern of results may be an artifact of same-source versus multi-source relationships in that common rater variance could account for these differential effects. We will therefore not go as far as to suggest that providing may be more beneficial than receiving, yet our results do add to the small but growing body of evidence for the benefits of providing support. We believe this is a core finding of our study and has the important implication that providing support may be an attractive strategy to enhance employees' well-being (see also Grant et al., 2008) – and this is actually very much in line with the strategic approach to resource investment that is central to COR theory.

All in all, we believe our study makes several important contributions to the organizational literature. We contribute to theory on social support by incorporating the perspective of the support provider and by including both work-based and family-based predictors in our dyadic model. Furthermore, we studied the support provision process as it unfolds in the daily lives of dual-earner couples as they balance their work and family roles. We have argued that the lives of such couples are demanding and that research needs to examine the influence of the work domain on social support and well-being in the family domain. Our study has done so and we believe that our use of experience sampling methodology has provided unique insights into the everyday dynamics of spousal support provision in dual-earner couples.

3.6.2 Implications for dual-earner couples and organizations

Given the prevalence of demanding work in modern organizations (Dewe & Cooper, 2012), it is critical for practitioners to understand how work affects the well-

being of today's workforce. Our model has explicitly addressed the influence of the work domain on support provision in the family domain. We found that on days when employees experienced work interference with family, they showed less supportive behaviours towards their spouse. But a working spouse is often in need of support, in that social support may prevent work-family conflict in an emotionally exhausted spouse (i.e., assist in replenishing resources) – this was shown in Chapter 2 of this dissertation. Thus, our results are particularly relevant in the context of a steady rise of dual-earner couples, who on a daily basis have to juggle the demands of two jobs coupled with family responsibilities. As our results showed, this may leave limited time and energy for supportive acts but at the same time creates the need for such support.

Indeed, previous research indicated that members of dual-earner couples are particularly susceptible to the experience of work-family conflict (Greenhaus, Parasuraman, Granrose, Rabinowitz, & Beutell, 1989). As our findings pointed to the detrimental effect of work-family conflict on spousal support provision, an implication for employees is that their dual-earner status may pose significant problems for family well-being. It is safe to say that dual-earner couples need to develop work-family strategies (Becker & Moen, 1999) and organizations should assist them in doing so through offering work-family policies (Kossek & Ozeki, 1998) and work-family-specific organizational support (Kossek et al., 2011).

Not only dual-earner couples but also organizations may be affected by spousal support in the family domain. Providing social support can reduce the spouse's family demands in the evening (Carlson & Perrewé, 1999) and the associated family interference with work on the next day (Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011). It is furthermore likely that well-being states of employees spill over from the family domain to the work domain. We have examined relationship and life satisfaction as key indicators of subjective well-being that are influenced by spousal support. A recent review reported that employees' life satisfaction is critical for job performance and turnover intentions as well as citizenship behaviours towards co-workers (Erdogan, Bauer, Truxillo, & Mansfield, 2012). It is not unlikely that relationship satisfaction influences employee attitudes and behaviours in a similar fashion. Thus, we believe that an effective social support system in the family domain would be in the best interest of today's demanding work organizations and may even be necessary to secure their long-term success.

3.6.3 Future research

We strongly recommend that researchers follow the dyadic perspective on work and family issues that we take in this paper. The work-family literature is characterized by a focus on the individual employee, however, our results on support provision are an illustration of how an employee's work can affect family members, and such cross-spouse influences can only be examined from a dyadic perspective and by focusing on actual outcomes in the family domain. In accordance with the W-HR model, we therefore suggest that future research assesses (behavioural) outcomes at home that reflect family interactions essential for the well-being of couples (e.g., support provision, social undermining). Furthermore, consistent with our resource perspective on social support, we recommend that future researchers measure individuals' personal resources in the family domain (e.g., self-esteem, optimism; see e.g., Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009) in order to further test COR predictions with respect to work and family. For example, personal resources and experiences of both spouses could be sampled when arriving home from work and again at the end of the evening before going to sleep, with the aim to examine how support provision and other dyadic interactions are influenced by, and influence, their levels of personal resources.

The dyadic nature of social support in couples, which we believe is an important contribution of our theorizing and testing, is perhaps most salient in our examination of reciprocity between spouses. Work on reciprocity explicates that providers of social support are expected to receive support in return at a later point in time. Although this argument entails an assumption of time-lagged reciprocity, this temporal notion has virtually gone untested in prior research. We have examined reciprocity within couples across days, thus testing whether reciprocation of social support occurs within the time frame of a single day. We believe that more research is needed on reciprocity and balance in relationships. Especially in romantic relationships, a certain degree of unbalance in terms of give and take will most likely be considered acceptable for some time when spouses are aware of the causes and know it will only be temporary (e.g., one spouse has a very busy work month due to project deadlines).

It is further recommended to extend our set of predictors and outcomes of social support in dual-earner couples. Researchers can examine individual difference variables (e.g., attachment style) as moderators of some of the daily relationships proposed in our model. Of course, social support provision also influences longer-term couple-level outcomes, such as the longevity of the marriage or relationship,

and future research should include such outcomes as well. Finally, we believe it would be a fruitful direction for future research to extend our model and examine the influence of support provision in the family domain on outcomes in the work domain, for both spouses, following a dyadic perspective. This way, research can examine feedback loops between work and family across a series of days.

3.6.4 Strengths and limitations

In addition to the earlier mentioned theoretical contributions, our study had notable strengths related to the research design. We used experience sampling methodology with two measurements per day in different contexts (at work and at home) and the variables in our model are based on multi-source data (i.e., dyadic study design). This significantly reduced the threat of common method (rater) bias against the validity of our findings. We have further capitalized on our dyadic data structure by using dyadic modelling (APIM) and incorporating the perspectives of both spouses, thereby overcoming some of the limitations that characterize most organizational and family research on dyadic phenomena (see Krasikova & LeBreton, 2012).

The main limitation of this research is the study sample. Given the intensity of the data collection for the respondents, with twice-daily surveys being completed for up to two weeks, we expected that participants would be more willing to put in the time and effort when they are familiar with the researchers. Thus, in order to have a large enough sample size, we approached dual-earner couples from our personal networks. This strategy may have limited the representativeness of the sample and the generalizability of our findings, although the sample was gender-balanced and also showed considerable diversity on other demographic characteristics.

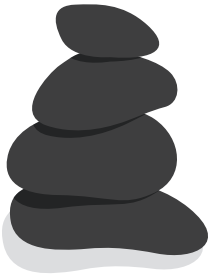
A second limitation refers to the issue of causality, as we should be cautious in making causal claims, in particular regarding the association between support provision and relationship satisfaction. Yet our framing of the questions had the proper temporal sequencing because participants responded to the items on support provision retrospectively (to what extent did you show these behaviours tonight), whereas the evaluation of relationship satisfaction referred to the present moment (which was at the end of the evening). It should be noted, however, that previous research treated relationship satisfaction as a predictor of support provision (e.g., Iida et al., 2008), and we in fact believe it is very likely that the two constructs have a reciprocal relationship.

3.6.5 Conclusion

Hobfoll's (1990) observation that in previous research "social support was viewed as a given, as if we already knew . . . how it came about" (p. 435) still seems valid more than 20 years later. The conceptual work on determinants of support provision at the beginning of the nineties (Dunkel-Schetter & Skokan, 1990; Granrose et al., 1992) has not been followed up by much empirical research. We aimed to address this gap in the literature as we proposed and found that spousal support provision is predicted by provider's work-family conflict (resource drain hypothesis), recipient's emotional exhaustion (need-for-support hypothesis), and provider's received support (reciprocity hypothesis). In addition to examining determinants of support provision, our model focused on the benefits of social support for both the receiving and the providing spouse. Jointly, the results presented herein deepen our understanding of daily spousal support provision as a dyadic phenomenon in dual-earner couples.

CHAPTER 4

Hanging out with friends or studying? An examination of inter-role conflict among university entrants



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4.1 Introduction

In the course of adolescence, multiple social roles become salient. When people hold different roles, they are likely to suffer from conflicting demands (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964) and to have competing motivational goals (Fries, Dietz, & Schmid, 2008). Two interpersonal contexts that are especially likely to interfere with each other at this stage of life are the study and social domains. Adolescents are expected to simultaneously expend time and effort on their education as well as to build relationships and spend time with friends (Hofer, Schmid, Fries, Zivkovic, & Dietz, 2009), yet the role of a student is likely to be oftentimes incompatible with social activities (Grund, 2013). This study focuses on inter-role conflict between the social domain and the study domain (from now on referred to as social-study conflict) among late adolescents who have just entered the university.

Whereas an extensive body of research has focused on work-family conflict among working adults and its consequences for job performance and employee well-being (Frone, Yardley, & Markel, 1997; Higgins, Duxbury, & Irving, 1992), little to no research explored inter-role conflict among students. Most of these studies focus on (nontraditional) students' school-work and school-family conflicts (e.g., Adebayo, Sunmola, & Udegbe, 2008; Hammer, Grigsby, & Woods, 1998; Markel & Frone, 1998). However, although work and family are dominant domains for a large part of our lives, the roles of family member and employee are not prominent social roles for young adults. Instead, roles pertaining to social life (being a friend) and study life (being a student) become salient – yet often conflicting – in late adolescence. Balancing the roles associated with these life domains is highly relevant for personal development and growth (Dumont & Provost, 1999). It is therefore surprising that so little is known about the factors that impact on how adolescents experience inter-role conflict.

The growing body of research on stress among students claims that stress is a prevalent phenomenon in higher education (Robotham & Julian, 2006). Although inter-role conflict is one of the key sources of stress for adults (Greenhaus & Parasuraman, 1987), research on students' inter-role conflict seems rather disconnected from the literature on student stress (e.g., Hofer et al., 2009). In this paper, we argue that social-study conflict needs to be considered additionally when studying stress and well-being among students, as it has been found that individuals who are able to effectively combine multiple social roles tend to experience less stress and higher levels of well-being (Greenhaus, Collins, & Shaw, 2003).

Research on student well-being and academic performance has been blossoming, yet only the more recent studies (Chambel & Curral, 2005; Cotton, Dollard, & De Jonge, 2002; Salanova, Schaufeli, Martínez, & Bresó, 2010; Schéle, Hedman, & Hammarstrom, 2012) have turned to job stress theories such as the Job Demands-Resources model (JD-R; Bakker & Demerouti, 2007) to explore academic stress and performance. We follow this line of research, as we apply the JD-R model to a higher education setting in order to understand the psychological processes through which academic demands and resources impact student outcomes. Specifically, we focus on stressors related to the study domain (e.g., exams) and social-to-study conflict (when the social domain interferes with the study domain) as demands and on social support from the student group as a resource. We consider these as key characteristics of students' psychosocial environment, and further examine the impact of these factors on three student outcomes: academic satisfaction, academic performance, and study-to-social conflict.

Importantly, then, we distinguish between social-to-study conflict (interference with the study domain) and study-to-social conflict (when the study domain interferes with the social domain). In conceptualizing social-study conflict, we use insights from two theoretical approaches, namely sociological theories on inter-role conflict (Kahn et al., 1964; Marks, 1977) and research on motivational conflict and interference (Fries et al., 2008; Hofer, Kuhnle, Kilian, Marta, & Fries, 2011). Our study builds on previous research by going beyond the primary focus on sources and outcomes of student stress that are purely academic in nature (e.g., Abouserie, 1994; Salanova et al., 2010) and as such we fill a void in the literature, which so far has largely overlooked the role of inter-role conflict in students' lives.

4.2 Theoretical Framework

Given the variety of social roles occupied during adolescence (Harter, Bresnick, Bouchey, & Whitsell, 1997), inter-role conflict seems to be a particularly salient phenomenon at this stage of life. According to role theory, expectations of others and what is believed to be appropriate behavior for a particular position place (psychological) demands on the individual, and multiple roles are likely to create conflicting demands (Biddle, 1986). Two interpersonal contexts that are especially likely to conflict are the study and social domains; the new environment of university entrants poses both intellectual and relational demands that, according to Conservation of Resources (COR) theory (Hobfoll, 1989), fight for the individual's (limited) set of resources and are therefore likely to result in a trade-off between

study-related and social activities. We use the term social-study conflict to refer to this particular form of inter-role conflict.

4.2.1 Conceptualizing social-study conflict

Currently, there are two perspectives explaining social-study conflict. According to sociological theories on inter-role conflict (Kahn et al., 1964; Marks, 1977), navigating between the social and study domains is stressful due to incompatible expectations or an overload of demands. Research on motivational action conflict and motivational interference (Hofer et al., 2010; Kilian, Hofer, & Kuhnle, 2010) suggests that adolescents may be torn between two alternative actions (i.e., studying or spending time with friends); when one chooses to spend time on one activity, thoughts and feelings about the non-chosen options interfere with the chosen action. Thus, whereas role conflict theory posits that multiple roles are likely to create conflicting demands that put too much pressure on the individual, the motivational view on social-study conflict emphasizes the intruding nature of non-chosen options for the preferred activities.

For illustrating purposes, imagine a student who is asked by his friends to join them in going to a party. However, he has to study for an upcoming exam. He therefore does not have time to go to the party, or if he would, he may feel that studying has taken its toll on his resources such that he feels tired and stressed. This refers to a situation of incompatible role pressures, in that the student has to miss or cannot enjoy social activities due to study demands. He indeed decides not to go to the party, and as a consequence he feels bad about missing out on the party and may also feel guilty towards his friends. This refers to a situation of motivational interference, in that thoughts and feelings about the missed party intrude his study activities. It follows that this person not only experiences conflicting demands but also competing motivational goals, and both cause interference between domains such that participation in one makes it more difficult to participate in another.

Thus, we do not see these perspectives as colliding but rather believe that both theoretical approaches provide valuable insights for conceptualizing social-study conflict. We conceptualize social-study conflict as a form of inter-role conflict that occurs when the role pressures and motivational goals from the social and study domains are mutually incompatible in some respect. When such a conflict exists, there is a need for self-regulation and (motivational) choices (Fries et al., 2008), which will ultimately result in interference between the two domains. Social-study conflict (as any form of inter-role conflict) is inherently a bidirectional construct because interference can take two forms, namely social-to-study conflict and study-to-social

conflict. In this paper, we consider social-to-study conflict as an academic stressor because interference with the study domain puts additional load on adolescents' already high intellectual demands. Study-to-social conflict implies interference with the social domain in such a way that it is likely to reduce satisfaction and performance in that domain. Given the central place that the social domain holds in the lives of adolescents (Helsen, Vollebergh, & Meeus, 2000), we treat study-to-social conflict as a well-being outcome for students.

4.2.2 The JD-R model in academic contexts

Much like a regular job, an academic program is demanding and puts pressure on the individual (Noh, Shin, & Lee, 2013; Parker & Salmela-Aro, 2011). Cotton and colleagues (2002) asserted that scholars should draw on relevant theory and research from the fields of job stress in the absence of well-conceived theories on student well-being and performance. Subsequently, researchers have applied frameworks such as the JD-R model or the Demands-Control-Support model (DSC; Johnson & Hall, 1988) to academic contexts (e.g., Schéle et al., 2012). We take a similar approach as we draw on the JD-R model to argue that the analysis of the psychosocial environment of students will help explain their outcomes.

The JD-R model predicts outcomes such as well-being and performance by classifying characteristics of the work environment into two broad categories, namely demands and resources. It then assumes that two different psychological processes are at play: demands lead to strain, while resources result in engagement via a motivational process. Although a demand is not negative by definition and is therefore not necessarily a stressor (Bakker & Demerouti, 2007), the JD-R (and DSC) model has also been used to study the impact of stressors (e.g., Ilies, Johnson, Judge, & Keeney, 2010). In this paper, we use the framework of the JD-R model to study the impact of the university environment (in terms of academic stressors and resources) on students' well-being and academic performance.

4.2.3 Constructs of the study

Salanova and colleagues (2010) identified a list of performance obstacles (demands) and facilitators (resources) among university students. These demands and resources were all specific to the academic domain (e.g., overlapping classes, anxiety for exams), although inter-role conflict (the extent to which one domain interferes with another domain) can also be seen as a demand (see e.g., Bakker, Demerouti, & Verbeke, 2004). We will therefore focus not solely on study-related (domain-specific)

stressors but also consider social-to-study conflict as an academic stressor, as this reflects the extent to which the social domain makes participation in the study domain more difficult.

Studies on the JD-R model have focused extensively on social support as a resource (Bakker & Demerouti, 2007). In the academic domain, group members are key sources of social support, as collaborative learning is often used in higher education (Curşeu & Pluut, 2013). The importance of the collaborative learning group is emphasized in research on students' help-seeking (Webb & Mastergeorge, 2003) and classroom communities (Summers & Svinicki, 2007). The interdependence and interaction required in group work increases the likelihood that social support is provided and received in either the form of instrumental support, such as workload sharing, or emotional support. We therefore focus on social support received from the student group as an academic resource.

We further relate these stressors and resources to students' well-being (conceptualized as academic satisfaction and study-to-social conflict) and academic performance. Academic satisfaction (how students think and feel about their academic experience) is found to be important for factors such as institutional commitment and student retention (Aitken, 1982), and it is therefore an important outcome in itself. We consider study-to-social conflict also a relevant well-being outcome for students because interference with social activities is likely to decrease their personal development and growth (Dumont & Provost, 1999). Whereas study-to-social conflict is a measure of well-being related to the interface of two domains, academic satisfaction is a domain-specific measure of well-being. Finally, academic performance (how well students meet course requirements) is widely studied in the literature on student stress (e.g., McKenzie & Schweitzer, 2001), and we consider it a key outcome for both the individual student and the educational institution.

4.3 Hypotheses

4.3.1 Predicting academic satisfaction

Satisfaction is one of the most studied well-being outcomes associated with inter-role conflict (Kossek & Ozeki, 1998). In one of the few studies considering the study domain, it was found that work-school conflict is associated with reduced satisfaction with the educational experience (Hammer et al., 1998). In line with this finding, we expect that social-to-study conflict is negatively related to academic satisfaction. Following both the role conflict and motivational interference models, we conceptualize social-to-study conflict as a demanding factor (in line with the JD-R

model) because it implies that one is less able to perform the role of student, either due to activities in the social domain (resulting in lack of time or fatigue) or due to motivational interference while studying (in the face of tempting social activities). When the social domain interferes with studying in such a way that the individual is not able to make the most out of his or her participation in the study domain, reduced satisfaction in that domain is a likely outcome.

> *Hypothesis 1:* Social-to-study conflict is negatively associated with academic satisfaction.

In line with the propositions in the JD-R model, we expect that impaired academic satisfaction may result from the strain that is caused by high study-related stressors. The stressor–satisfaction relationship has been studied in different domains, such as work (see Sullivan & Bhagat, 1992) and family (e.g., Parasuraman, Greenhaus, & Granrose, 1992). In the study domain, high academic demands are associated with lower satisfaction with academic life (Chambel & Curral, 2005; Cotton et al., 2002; Karatzias, Power, Flemming, Lennan, & Swanson, 2002), perhaps because stressors negatively change perceptions of the quality of the environment (Demerouti, Bakker, Nachreiner, & Schaufeli, 2000). We therefore hypothesize a within-domain effect of study-related stressors on academic satisfaction.

> *Hypothesis 2:* Study-related stressors are negatively associated with academic satisfaction.

In the JD-R framework, resources are conceptualized as those aspects of the environment that help in achieving work goals, enhance learning and personal growth, or reduce demands and the associated costs (Bakker & Demerouti, 2007). As a resource, then, social support has been put forward as an important motivational aspect of the university environment (Cotton et al., 2002). Although social support is a concept that mainly stems from the stress and coping literature (Cohen & Wills, 1985), it can – even in the relative absence of stress – directly enhance well-being (e.g., satisfaction) because it meets one's social needs for belonging, approval, and affection (House, 1981). Findings in the work-family literature support this notion, as researchers have found positive and direct relationships between work support and job satisfaction on the one hand and between spousal support and family satisfaction on the other hand (Carlson & Perrewé, 1999; Parasuraman et al., 1992).

Researchers report similar findings in academic contexts, where social support was found to directly impact psychological distress (Cotton et al., 2002) and

academic satisfaction (Chambel & Curral, 2005). Given the prevalence of group work in higher education settings (Davies, 2009), the student group forms a key source of support within the academic environment. Group members can provide each other with different types of support, such as showing concern (emotional support), making suggestions on how to do their study work better (informational support), or assisting and taking over work in group assignments (instrumental support) (House, 1981). We expect that the experience in a particular domain is likely to be more satisfying when one receives support from a source relevant to that domain.

Hypothesis 3: Social support from the student group is positively associated with academic satisfaction.

4.3.2 Predicting study-to-social conflict

The JD-R model conceptualizes demands as aspects of the environment that require sustained effort and as such tend to induce strain (Bakker & Demerouti, 2007), and we therefore expect that study-related stressors lead to study-to-social conflict. Two mechanisms linking the study and social domains can explain this inter-role conflict, namely resource drain and spillover (Edwards & Rothbard, 2000). A resource drain perspective contends that study-related stressors require significant time and energy to be spent in the study domain, which subsequently cannot be spent in the social domain. The spillover mechanism implies that distress resulting from study-related stressors (as would be predicted by the JD-R model) carries over from the study to the social domain. Thus, students who experience high study-related stressors are likely to be preoccupied with studying as well as to be more fatigued or frustrated, which in turn makes participation in the social domain more difficult. Previous research has found support for an association between role stressors and inter-role conflict (see Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011). We therefore put forward the following hypothesis.

Hypothesis 4: Study-related stressors are positively associated with study-to-social conflict.

In the literature on the work-family interface, research has consistently found support for the negative association between social support and work-family conflict (e.g., Carlson & Perrewé, 1999). Recent meta-analyses suggest that social support reduces inter-role conflict in particular when it is specifically matched to the demands that create such conflict (Byron, 2005; Ford, Heinen, & Langkamer, 2007). The JD-R

model proposes that social support creates a more positive environment and may reduce the costs of demands. As such, social support from the student group is likely to influence study-to-social conflict (and not social-to-study conflict) because it leads to more positive and less demanding perceptions of the study domain, thereby reducing the potential for interference with the social domain.

Hypothesis 5: Social support from the student group is negatively associated with study-to-social conflict.

4.3.3 Predicting academic performance

Work on inter-role conflict and motivational conflict suggests that interference from one domain to another domain inhibits performance in the latter domain (Frone et al., 1997; Hofer et al., 2011). When the social domain interferes with adolescents' ability or willingness to meet study-related demands, performance in the study domain is likely to be negatively affected and learning outcomes are impaired. Indeed, research shows that interference with the study domain is associated with poor concentration at school, reduced school readiness, and heightened academic hopelessness (Markel & Frone, 1998; Ratelle, Senécal, Vallerand, & Provencher, 2005), which ultimately should be reflected in students' grades. We therefore hypothesize the following.

Hypothesis 6: Social-to-study conflict is negatively associated with academic performance.

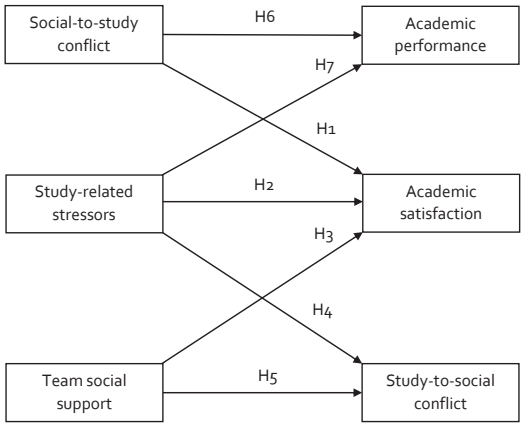
Research on the JD-R model has found that stressors exhaust the individual and therefore lead to impaired performance outcomes (Bakker et al., 2004). In line with this argument, research on student stress found that reduced academic performance is a likely response to elevated stress levels (Felsten & Wilcox, 1992; Robotham & Julian, 2006). We therefore expect that high study-related stressors result in reduced in-role performance.

Hypothesis 7: Study-related stressors are negatively associated with academic performance.

Figure 4.1 visually depicts all hypotheses in a conceptual model.

FIGURE 4.1

Overview of hypotheses in a conceptual model



4.4 Method

4.4.1 Sample and procedure

We have chosen to focus on a population of young adults who have just entered the university, as the prevalence of stress is especially evident among first-year students who recently made the transition to university (Bewick, Koutsopoulou, Miles, Slaa, & Barkham, 2010). The sample consists of 225 International Business Administration students who participated in a first-year bachelor course (Organizational Behaviour) at a Dutch university. The respondents had an average age of 19.9 years, women made up 40.9% (92) of the sample, and the majority of the students were Dutch (68.9%). Students worked in small groups throughout the course (average size of 6.1, fixed group membership). Student groups were required to work on practical exercises during weekly workshops as well as to write a group paper.

During three consecutive workshops, students were asked to fill out individual questionnaires (when not present in the workshops, they were sent an e-mail and were asked to return the filled out questionnaire digitally that same week). The period between the three evaluation moments covered one week each time. Some items in the questionnaires asked about individual demographic characteristics (i.e., age, gender, and nationality). In addition, the first questionnaire (Time 1; n = 188) contained items related to the level of study-related stressors and team social

support. The second questionnaire (Time 2; *n* = 179) measured the level of study-to-social conflict and social-to-study conflict. The final questionnaire (Time 3; *n* = 155) assessed students' academic satisfaction. Students were required to take an exam in order to pass the course (*n* = 205). The questionnaires were filled out before the exam, which was scheduled one month after Time 3.

4.4.2 Measures

Study-related stressors. The Graduate Stress Inventory (Rocha-Singh, 1994) and the University Student Stress Questionnaire (Burge, 2009) list a number of factors that are known sources of stress for students, such as examinations. Using a selection of 12 items from these scales, we evaluated the level of study-related stressors among students. Students were asked how stressful (from 1 = *not at all stressful* to 5 = *extremely stressful)* they found each item from a list of study-related stressors (e.g., "Meeting deadlines for course assignments" and "Keeping up with reading"), and we clustered the scores for this variety of stressors together to come at an overall level of study-related stressors. The Cronbach's alpha for the scale was .81.

Team social support. The scale for measuring team social support was developed starting from existing items (see Eisenberger, Huntington, Hutchison, & Sowa, 1986; Zimet, Dahlem, Zimet, & Farley, 1988), adapting the items to the team context (for a similar strategy, see Howes, Cropanzano, Grandey, & Mohler, 2000). The 15 items in total evaluated the extent to which (members in) the student group in this particular course provided the student with help or support. Answers were recorded on a five-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*). The items referred to different types of social support, such as emotional support (e.g., "I can talk about my problems with my team members"), instrumental support (e.g., "My team members are ready to help me when I need a special favour"), and informational support (e.g., "My team members bring to my attention information that may be useful for my study work"), yet a factor analysis showed that all items loaded significantly on one main component, which had an eigenvalue of 5.89 and explained 39.2% of the variance in scores. Cronbach's alpha for the scale was .88.

Social-study conflict. We measured conflict between the social and study domains by asking students to indicate their agreement with statements about balancing their study and social life (i.e., their roles as student and friend). Answers were recorded on a five-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*). We developed these scales starting from existing items of work-family conflict scales (see Carlson, Kacmar, & Williams, 2000; Kopelman, Greenhaus, & Connolly, 1983; Netemeyer, Boles, & McMurrian, 1996), which we then modified to refer to the social

and study domains instead (using terms such as social life/friend and study/university/school, respectively).

The items for social-to-study conflict assessed the extent to which the social domain interfered with the study domain (e.g., "My social life takes up time that I would like to spend studying" and "I am often too tired at school because of my activities with friends"). The reliability analysis pointed to one problematic item in the scale, which we therefore deleted. The final scale consisted of five items and had a Cronbach's alpha of .69. The scale for study-to-social conflict consisted of 12 items that pertained to the extent to which their study life interfered with their social life (e.g., "My study takes up time that I would like to spend with friends" and "The stress from my study makes me irritable when I am with friends"), with a Cronbach's alpha of .87.

Academic satisfaction. The scale measuring academic satisfaction was developed by, first of all, selecting and adapting items from the Job Satisfaction Index (Brayfield & Rothe, 1951) and then replacing the words "job" and "work" with "study". Secondly, we selected items from the Academic and Intellectual Development subscale by Pascarella and Terenzini (1980) to capture students' satisfaction with the institution. The seven items in total therefore measured students' satisfaction with their study and the university in general (e.g., "I mostly feel enthusiastic about my study" and "I am confident that I made the right decision in choosing to attend this university"). Nevertheless, all items loaded on a single factor; the main component had an eigenvalue of 2.67 and explained 53.5% of the variance in scores. Answers were recorded on a five-point Likert scale (1 = *very slightly or not at all*, 5 = *extremely much*). Two of the seven items appeared to be problematic based on a reliability analysis and were therefore eliminated from the scale. The Cronbach's alpha for the final scale was .78.

Academic performance. We evaluated academic performance in an objective manner by assessing students' scores on the final exam of the course Organizational Behaviour. This knowledge test consisted of 60 multiple choice questions (maximum score is therefore 60) that covered a variety of Organizational Behaviour topics. Based on university regulations, checks were routinely carried out on the multiple choice exam questions and showed that all questions performed well in terms of discriminant validity and item difficulty. Moreover, the exam scores were normally distributed in the student population. Since this dependent variable is a count variable, we took its natural logarithm for further analyses (Allison, 1999).

Control variables. We decided to use students' demographic characteristics as control variables because men and women on the one hand and Dutch and

exchange students on the other hand are likely to react differently to stress(ors) and have different academic experiences (Nora, Cabrera, Hagedorn, & Pascarella, 1996). We dummy coded gender (0 = male, 1 = female) and nationality (0 = Dutch, 1 = non-Dutch).

4.5 Results

Table 4.1 includes the descriptive statistics for and the correlations between all the study variables. As can be seen from Table 4.1, there were no significant correlations between any of the three outcome variables. We therefore performed three separate regression analyses, with academic satisfaction, study-to-social conflict, and academic performance as dependent variables. Table 4.2 reports the results.

TABLE 4.1

Descriptive statistics and bivariate correlations

Variable	*M*	*SD*	1	2	3	4	5	6	7	8
1. Gender	.41	.49	–							
2. Nationality	.31	.46	-.05	–						
3. Study-related stressors	2.62	.52	.10	.12	–					
4. Team social support	3.28	.46	-.04	-.07	-.08	–				
5. Social-to-study conflict	2.89	.68	-.12	-.09	.12	.07	–			
6. Study-to-social conflict	2.40	.58	.19*	.13	.29**	-.07	-.05	–		
7. Academic satisfaction	3.51	.51	-.02	-.06	-.08	.14	-.20*	.03	–	
8. Academic performance	36.40	6.94	.06	-.25**	-.30**	.01	-.18*	-.07	.08	–

Note. Academic performance is in its original scale (no natural logarithm).

*$p < .05$. **$p < .01$.

The regression analysis for academic satisfaction showed significant effects for social-to-study conflict (p = .004, 95% CI [-0.36, -0.70]) and team social support (p = .037, 95% CI [0.01, 0.41]), providing support for Hypotheses 1 and 3. We did not find an effect of study-related stressors on academic satisfaction (p = .83, 95% CI [-0.16, 0.20]), resulting in the rejection of Hypothesis 2. Hypothesis 4 stated that study-related stressors increase study-to-social conflict. We found statistical support for this hypothesis (p = .001, 95% CI [0.12, 0.45]). Furthermore, we hypothesized that team social support reduces study-to-social conflict, but this negative effect was not significant (p = .69, 95% CI [-0.22, 0.15]). Hypothesis 5 was therefore rejected. The results of the final regression analysis showed that academic performance was negatively predicted by study-related stressors (p = .001, 95% CI [-0.15, -0.04]) and

social-to-study conflict (p = .021, 95% CI [-0.09, -0.01]). This implies that Hypothesis 6 and Hypothesis 7 were both supported. Looking at the effect of our control variables, we found that women experienced higher study-to-social conflict compared to men (p = .041, 95% CI [0.01, 0.35]), while Dutch students had significantly better academic performance than foreign students (p = .002, 95% CI [-0.17, -0.04]). Overall, we can conclude that the results support five of our seven hypotheses.

TABLE 4.2

Results of regression analyses

	Dependent variables		
Independent variables	Academic satisfaction	Study-to-social conflict	Academic performance
Gender	-.07 (.09)	.16* (.09)	.07 (.03)
Nationality	-.03 (.11)	.09 (.10)	-.23** (.03)
Team social support	.19* (.10)	-.03 (.09)	.04 (.03)
Study-related stressors	.02 (.09)	.26** (.08)	-.27** (.03)
Social-to-study conflict	-.26** (.07)	-.05 (.06)	-.17* (.02)
R^2	.09	.12	.18
F	2.411*	4.421**	6.861***

Note. Standardized regression coefficients are shown with standard errors between parentheses. Male and Dutch are the reference categories for gender and nationality, respectively.

*p < .05. **p < .01. ***p < .001.

4.6 Discussion

The present study focused on the role of social-study conflict in the lives of university entrants. We have argued that this set of students is under pressure of competing role demands, as they face multiple goals and multiple action opportunities. In such a situation, a trade-off between study-related and social activities is likely to occur (Fries et al., 2008; Grund, 2013). Using the Job Demands-Resources model (Bakker & Demerouti, 2007), we examined the impact of stressors and resources in the psychosocial environment of students on their well-being and academic performance. Our most important contribution resides in extending the focus on factors that are purely academic in nature by examining the role of inter-role conflict in students' lives.

The results showed that study-related stressors did not decrease academic satisfaction in a significant manner, but students who experienced high study-related stressors tended to have lower academic performance and perceived more

interference from the study to the social domain. Furthermore, interference from the social to the study domain resulted in reduced academic satisfaction as well as impaired academic performance. Finally, social support from the student group increased satisfaction with the academic experience but did not reduce study-to-social conflict.

These results confirm the findings of other studies (e.g., Chambel & Curral, 2005; Cotton et al., 2002) that environmental characteristics contribute to an understanding of student well-being and performance and that job stress theories prove useful in analysis of the psychosocial environment. We have applied the Job Demands-Resources model, "an overarching model that may be applied to various occupational settings, irrespective of the particular demands and resources involved" (Bakker & Demerouti, 2007, p. 213), and we show that it has relevance in academic settings as well. However, in our analysis of the university environment, we have gone beyond a focus on factors that are purely academic in nature by considering students' inter-role conflict. It seems that students – when asked about performance obstacles – think solely of domain-specific factors and do not perceive inter-role conflict as a problem (Salanova et al., 2010). We, however, found that students who experience social-to-study conflict perform worse academically and are less satisfied with the academic experience. Interference of the social domain with the study domain can therefore be considered an additional stressor for students, above and beyond study-related stressors.

4.6.1 Contributions to theory

In conceptualizing social-study conflict, we have built on theoretical insights from the role conflict and motivational conflict streams of research. Whereas work-family research has generally relied on sociological theories of inter-role conflict (e.g., Kahn et al., 1964), research on social-study conflict has adopted a motivational perspective (e.g., Grund, 2013). Combining these approaches, a more accurate conceptualization of inter-role conflict seems to be as a situation of incompatible role pressures and competing motivational goals; that is, interference between domains may be due to the combination of role demands as well as due to motivational interference. The directionality of interference in a social-study conflict situation is a consequence of the motivational choices made by students.

It should be noted, however, that – at the level of specific events – motivational interference and interference due to multiple demands are oftentimes not symmetric. Earlier, we have given the example of a student who has to prepare

compare the two forms of interference for the scenario in which the student does not decide to join his friends. On the one hand, underlying this decision is the student's evaluation that he simply does not have the time and also feels tired from studying; that is, the study domain interferes with the social domain *through a resource drain mechanism*. On the other hand, even though the student decides to study, the social alternative will retain its motivational power, such that the student feels distracted and annoyed while studying due to the non-chosen option of hanging out with friends, thus leading to interference from the social domain to the study domain *through a motivational mechanism*. It follows that one particular decision (e.g., to prepare for an exam instead of going to a party) can trigger both study-to-social conflict (the student has to miss out on social activities due to study-related demands) and social-to-study conflict (the student has intruding thoughts and feelings about the missed social activities while studying).

We believe that research on inter-role conflict will benefit from an integration of theories on role conflict and motivational conflict theories. It is important to recognize that people have multiple role demands as well as multiple goals and action opportunities. It seems particularly interesting to examine the dynamic interplay between the resource drain and motivational mechanisms that together underlie interference between domains.

4.6.2 Future research

Social-study conflict is a bidirectional construct because the social domain can interfere with the study domain (social-to-study conflict) and the study domain can interfere with the social domain (study-to-social conflict). We have treated social-to-study conflict as a stressor and study-to-social conflict as a well-being outcome in this study, yet both types of inter-role conflict are likely to have antecedents and outcomes. To the best of our knowledge, no attempts have been made to systematically model causes and consequences of social-study conflict, and we therefore suggest that future research tests a model of social-study conflict among late adolescents that explores the antecedents and outcomes of this form of inter-role conflict.

Given the lack of studies and theories on adolescents' inter-role conflict in general and social-study conflict in particular, researchers could draw on work-family conflict models (e.g., Frone, Russell, & Cooper, 1992; Frone et al., 1997) to develop and test an integrative model of social-study conflict. For instance, the level of involvement in social activities and the amount of stressors in the social domain may lead to distress, resulting in social-to-study conflict, such that the individual has less

study engagement and ultimately suffers from reduced satisfaction and performance in the study domain. Thus, we suggest that researchers evaluate constructs reflecting the demanding aspects of each domain as well as domain-specific outcomes, to address to what extent the processes discussed in the work-family literature are generalizable to other contexts (i.e., to different forms of inter-role conflict).

The role of social support in such models also needs further exploration, and our results point to the importance of the student group as a source of support. Although teams are prominent in organizations (Delarue, Van Hootegem, Procter, & Burridge, 2008) and higher education settings (Davies, 2009), they are understudied as a source of support for both employees and students. We therefore suggest that researchers consider social support from the team as a critical resource in future studies on stress and inter-role conflict.

4.6.3 Limitations

Some limitations of the study need to be acknowledged. First, our sample consists of a specific subject group (International Business Administration students) and is likely to differ from other groups of students in terms of well-being. Indeed, the descriptive statistics (see Table 4.1) indicate that these students perceived rather low levels of study-related stressors and inter-role conflict and high levels of satisfaction. We therefore encourage other researchers to consider using a more representative sample that covers students from a variety of subject areas (and ideally from different institutions) in order to test the generalizability of our findings.

Furthermore, we have relied almost exclusively on self-reported data, with the exception of an objective measure of academic performance (i.e., exam score). Nevertheless, we have temporally separated the measurements, which reduces common method bias (Podsakoff, Mackenzie, & Podsakoff, 2011). The design, however, did not involve repeated measures and causal interpretations are therefore not warranted (i.e., we do not know whether constructs changed over time). Also, our measurements did not always have comparable reference levels. For instance, academic satisfaction was measured at the level of the study program and institution, whereas academic performance was assessed at the course level. This may explain the perhaps surprising lack of correlation between the outcome constructs (Aitken, 1982). On a more general level, this limitation may be an explanation for the somewhat small effect sizes and low explained variances in the regression models.

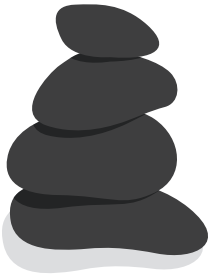
4.6.4 Practical implications

We can conclude from our findings that a high level of study-related stressors is a risk factor for adolescents. Although we did not corroborate other studies' finding that stressors negatively affect academic satisfaction (e.g., Chambel & Curral, 2005; Cotton et al., 2002), we did find a drop in academic performance and higher levels of study-to-social conflict as a consequence of high stressors. The interference from the study to the social domain implies that adolescents are not able to make the most of their experience in the social domain, yet social activities can be a resource that can reduce (the consequences of) academic stress (Misra & McKean, 2000). Engaging in social activities in a satisfactory manner is therefore especially important for students suffering from high study-related stressors, but they are not able to do just that because of these stressors. Overall, it seems that students that are under high academic pressure are at risk in terms of suffering from lower well-being as well as impaired academic performance, and they are therefore a group that needs attention.

The awareness has to grow among adolescents that the multiplicity of life domains poses a variety of demands. Student advisors and counsellors can assist students in identifying those demands that are particularly likely to lead to interference with another domain. Furthermore, training can be offered on time management (MacCann, Fogarty, & Roberts, 2012) and prioritizing goals (Kuhnle, Hofer, & Kilian, 2010). We see value in viewing social-study conflict as a motivational dilemma, especially given the decreased academic motivation of adolescents (Fries et al., 2008). In this respect, motivation regulation strategies are important to promote persistence in studying and to help shield students from social distractions. Finally, different support systems are available to adolescents (e.g., student group, peers, teachers, and family), and it is therefore important to recognize and mobilize those people who can help them in balancing roles and improving well-being. Our study points to the importance of the student group as a source of support for enhancing students' academic satisfaction, and teachers should facilitate the collaborative learning groups in their classrooms in such a way that they can become actual teams and develop as effective social support systems.

CHAPTER 5

Multiple team membership: A form of inter-role conflict?



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5.1 Introduction

Teamwork is extensively used in modern organizations because teams are flexible working units that help organizations gain and maintain a competitive advantage (Delarue, Van Hootegem, Procter, & Burridge, 2008). Oftentimes, the use of teamwork implies that individual employees are assigned simultaneously to more than one team, as is the case for 65 to 95 per cent of knowledge workers in the United States and Europe (O'Leary, Mortensen, & Woolley, 2011). Although in practice employees are often part of more than one team and team membership is not fixed (Wageman, Gardner, & Mortensen, 2012), only just recently team scholars have begun to challenge the traditional assumption that team membership is stable, non-overlapping, and unambiguous (Mortensen, 2014). As a consequence, relatively little is known about the implications of multiple team membership (MTM) for teams and their individual members (Mathieu, Maynard, Rapp, & Gilson, 2008; Tannenbaum, Mathieu, Salas, & Cohen, 2012; Wageman et al., 2012). Given the prevalence of multiple team membership as a work arrangement, it becomes increasingly important to understand the consequences of this new style of work for individual employees.

We conceptualize MTM as a situation in which working time is fragmented over multiple teams. Switching between team contexts implies that employees hold a variety of roles. We therefore adopt a multiple role perspective on MTM and draw on theories of role strain and role accumulation (Marks, 1977) to examine the impact of MTM on employee well-being. The role strain or "scarcity" perspective argues that engaging in multiple roles is detrimental to employees' well-being because shifting between roles is likely to result in role strain due to conflicting expectations or an overload of demands (Goode, 1960). The role accumulation or "expansion" perspective argues that a multiplicity of roles holds the potential to enhance employees' well-being because they gain access to resources through multiple role enactment (Sieber, 1974).

To illustrate these two competing perspectives, imagine that someone is assigned to work on four teams concurrently, after having worked on a single team in the past. This new style of working implies on the one hand that the person will be exposed to more diversity in knowledge and expertise and will have more chances to flexibly organize his or her work. On the other hand, simultaneous engagement in multiple projects may result in cognitive overload and exhaustion. In this paper, we

build on the role strain and role accumulation perspectives to study both the costs and benefits of multiple team membership for individual employees.

Consistent with the aforementioned perspectives, research on multiple team membership and related topics (e.g., multi-tasking, multi-project settings) suggests that being a member of more than one team poses coordination challenges and adds to the employee's workload, but at the same time it stimulates employees to become more efficient and creates multiple opportunities for learning (Matthews, Whittaker, Moran, Helsley, & Judge, 2012; O'Leary et al., 2011; Zika-Viktorsson, Sundström, & Engwall, 2006). We aim to contribute to the scant conceptual and empirical work in this area by integrating the two perspectives and by systematically modelling the implications of multiple team membership for a set of job-related challenges and opportunities. More specifically, we use as a framework the Job Demands-Resources model (Bakker & Demerouti, 2007) to explore the extent to which multiple team membership is a job demand (resulting in job strain as a negative indicator of well-being) or a job resource (resulting in work engagement as a positive indicator of well-being) for employees.

5.2 Theoretical Framework

O'Leary and colleagues (2011) define multiple team membership as a form of work organization in which individuals are concurrently members of two or more teams for a given period of time. Work arrangements wherein workers participate simultaneously in various teams may improve organizational effectiveness in a number of ways. Due to the overlap in membership across teams, organizations become networks of interconnected teams. This intra-organizational connectivity improves the utilization of organizational resources and prevents teams from engaging in overlapping or redundant work (O'Leary et al., 2011). Multiple team membership also provides managers with more flexibility to design effective teams by enhancing expertise and skill complementarity among members. Furthermore, teams that consist of members that switch between contexts are, as whole systems, exposed to a greater diversity of knowledge, opinions, and views. That is, multiple team membership implies boundary-spanning activities that are likely to drive the development of team cognition and foster team-level performance (Ancona & Caldwell, 1992). Another advantage of multiple team membership is the development of efficiency-enhancing practices in teams because team members become more task-focused in order to deal with the limited time they can spend together (O'Leary et al., 2011). Thus, one important reason for the widespread

adoption of this work design is that multiple team membership enables organizations to leverage their resources at the organizational and team level.

Looking beyond these organizational benefits, multiple team membership has consequences for the individual as well. As employees take on different roles depending on the team context, they are likely to experience both benefits and drawbacks of engaging in various teams. Theorizing about multiple roles generally fits one of two perspectives. The role strain perspective argues that engaging in multiple roles is harmful to employee well-being, whereas the role accumulation perspective argues that a multiplicity of roles enhances employee well-being. These competing perspectives are outlined in more detail below, as we review the limited body of research on individual consequences of multiple team membership.

5.2.1 Demand perspective on multiple team membership

The 'pessimistic' approach to role variety contends that the total set of role obligations is overdemanding and produces role strain (Goode, 1960). A person that occupies a multiplicity of roles may experience inter-role conflict when the pressures of one role become incompatible with the pressures of another role (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964). These claims central to the role strain or scarcity perspective are based on the assumption that personal resources are finite and that engaging in multiple roles drains this pool of resources faster.

Although we lack empirical findings on the negative consequences of multiple team membership, studies on multi-tasking and multi-project settings provide insights that are applicable to the topic of multiple team membership. For example, González and Mark (2005) studied information workers and they observed that these employees had to switch continually between work spheres and move in and out of collaborative contexts, and this fragmentation of work required a high level of effort from employees. Zika-Viktorsson and colleagues (2006) examined the psychosocial consequences of fragmented work and found that employees working in multi-project settings perceived their work as disrupted, experienced time scarcity, and had fewer opportunities for recuperations. Subsequently, employees suffered from elevated levels of stress and were less able to develop skills and improve their work practices.

Studies on multi-tasking have shown that different tasks interfere (Leroy, 2009) and that multi-tasking is therefore "a poor long-term strategy for learning" (Rosen, 2008, p. 107). Indeed, cognitive overload associated with the interferences among multiple projects or team memberships hampers reflection and knowledge integration processes that are required for learning. Thus, one of the core arguments

of the pessimistic view on multiple role enactment is that multiple team membership generates competing demands that imply time pressure and heavy workloads. As such, the role strain perspective suggests that membership in a variety of teams is a job demand for employees.

5.2.2 Resource perspective on multiple team membership

Whereas resources are conceptualized as finite in the scarcity perspective, resources can also been seen as abundant and expansible rather than scarce (Marks, 1977). The 'optimistic' role accumulation view argues that engagement in multiple roles does not necessarily use up resources and can even produce resources. That is, people receive rewards for role enactment. According to Sieber (1974), role accumulation provides the individual with more role privileges, buffers for failure, increased supply of perquisites (e.g., social support), and more opportunities for self-enhancement and ego-gratification. As such, the role accumulation perspective suggests that multiple team membership is a job resource for employees.

In line with this perspective, empirical results have suggested that being a member of multiple teams can indeed be used to the employee's advantage and that employees are often able to combine multiple collaborative relations in productive ways (Matthews et al., 2012). In such instances, multiple team membership assists employees in the accomplishment of core work activities and reduces their job demands, or at least compensates for additional demands that follow from working on multiple teams simultaneously. Members of multiple teams have more opportunities to distribute their time efficiently (i.e., avoid downtime) and are stimulated to become more efficient in their work practices (O'Leary et al., 2011). Furthermore, recent conceptual work by O'Leary and colleagues (2011) suggests that multiple team membership may be beneficial for the individual employee in terms of learning and productivity. These authors proposed a theoretical model contending that moderate levels of multiple team membership promote individual learning and productivity because it allows employees to transfer knowledge from one context to another and to use their time efficiently. Such a curvilinear relationship was found between multi-tasking and worker productivity in an empirical study by Aral, Brynjolfsson, and Van Alstyne (2012).

5.2.3 Job demands-resources model

Integrating these two competing perspectives on multiple roles, it appears that multiple team membership poses both challenges and opportunities for employees.

More specifically, the role strain perspective suggests that membership in a variety of teams is a job demand, whereas the role accumulation perspective suggests that multiple team membership is a job resource for employees. We aim to test whether multiple team membership as a work design is a job demand or a job resource for employees. Subsequently, we relate multiple team membership to particular job demands and resources that are frequently studied in research on the Job Demands-Resources model.

The Job Demands-Resources model (JD-R; Bakker & Demerouti, 2007) is one of the key theoretical models on job stress and proposes that two categories of work characteristics can be distinguished for any job: job demands and job resources. Job demands refer to the sustained physical or mental effort associated with work-related activities (Schaufeli & Bakker, 2004). Job resources, on the other hand, are those physical, psychological, social, or organizational aspects of the job that (a) are functional in achieving work goals, (b) reduce job demands and the associated costs, or (c) stimulate personal growth, learning, and development (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). The model further argues that job demands and resources predict negative and positive aspects of employee well-being, respectively, through two distinct psychological processes. Job demands result in a strain process and lead to exhaustion, while job resources have the potential to engage and motivate employees.

Having reviewed some of the costs and benefits of multiple team membership as identified in the literature, we will further on build an argument for the association between multiple team membership and a set of job demands and resources, to explore how this work design relates to the dual psychological processes in the Job Demands-Resources model, ultimately impacting on employee well-being. Work-derived well-being refers to how employees evaluate (that is, think and feel about) their work domain. Job strain and work engagement are conceptually and empirically distinct indicators of subjective well-being (Schaufeli, Taris, & Van Rhenen, 2008). Work engagement – defined as "a positive, fulfilling work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli, Bakker, & Salanova, 2006, p. 702) – is generally considered the positive antipode of job strain. We will therefore focus on job strain and work engagement as indicators of employees' work-derived well-being.

5.3 Hypotheses

In the context of multiple team membership, employees' time allocation across teams is a critical factor for performance (Mortensen, 2014), and it has been found to predict outcomes above and beyond the number of teams as a predictor alone (Cummings & Haas, 2012). As pointed out by Tannenbaum and colleagues (2012), it is possible that employees spend 70 per cent of their time in one team and only 10 per cent in each of three other teams. We therefore focus on fragmentation of employees' time across multiple teams in discussing the demanding and resourceful aspects of multiple team membership.

5.3.1 Multiple team membership and job demands

Job demands are those work characteristics that require sustained physical or psychological effort and skill (Bakker & Demerouti, 2007). In the context of demanding aspects of the job, researchers have distinguished between taskwork and teamwork. Taskwork refers to *what* is being done, whereas teamwork describes *how* it is being done and captures the interaction processes among team members (Marks, Mathieu, & Zaccaro, 2001). Multiple team membership requires that individuals expend effort on taskwork as well as on teamwork in their jobs, and we therefore chose to distinguish between taskwork-related demands on the one hand and job demands associated with teamwork on the other hand. Specifically, we focus on task load as a taskwork demand and on team process load and interpersonal conflict as teamwork-related demands.

Workload or task load refers to the perceived pace and amount of taskwork to be performed by the employee (Spector & Jex, 1998). According to the role strain perspective on multiple roles, spending resources (e.g., attention, time) in one role drains the resources available for another role. Switching between team contexts therefore results in an overload of demands and is psychologically stressful (Goode, 1960). The need to divide time across different teams puts employees under time pressure and provides them with fewer opportunities to 'catch their breath' (Zika-Viktorsson et al., 2006). As employees spread their time more equally across a rather high number of teams, role switching becomes more frequent and effortful, adding to the employee's task load. We therefore hypothesize the following.

> *Hypothesis 1a:* Fragmentation of time across teams is positively associated with task load.

We expect that multiple team membership adds another distinct set of job demands, namely demands related to teamwork activities and processes. In line with Knott, Bolia, Nelson, and Galster (2006), we term this 'team process load', which refers to those demanding aspects of the job that are associated with interaction processes among team members directed towards the completion of taskwork. Here, we focus on five dimensions of team processes: communication, monitoring, control, coordination, and leadership. As employees' working time is fragmented over multiple teams, teamwork processes are more effortful and demanding. Mortensen, Woolley, and O'Leary (2007) stated that "for individuals, MTM demands high personal discipline and interpersonal competence in addition to the expertise required to complete the task itself" (p. 5). In a similar vein, González and Mark (2005) argued that intertwining of teamwork does not only imply that employees have to manage and keep track of several working spheres but they also have to manage the collaborative relationships related to these working spheres.

For instance, when working time is fragmented over a number of teams, it becomes more necessary as well as more difficult to adjust one's own actions in order to coordinate with other team members. Leadership in a team to which a member can allocate only a portion of his or her time is also likely to be more demanding than in fixed and stable teams. Moreover, the fragmentation of time adds to the demands associated with exchanging information (i.e., communication) and it also complicates the processes of monitoring and correcting others. Mortensen (2014) attributes the overall increase in team process load to misalignment of individuals' mental models of who are, and who are not, members of the team. This so-called membership model divergence emerges when team memberships overlap and members dedicate less of their time to each single team. Hence, we hypothesize the following.

> *Hypothesis 1b:* Fragmentation of time across teams is positively associated with individual demands related to team processes.

In addition to creating the need for such teamwork processes, working in multiple teams (as opposed to a single team) may lead to more conflict between team members. Interpersonal conflict in the workplace is an important work stressor (Ilies, Johnson, Judge, & Keeney, 2011) and it is negatively associated with communication network density (Curşeu, Janssen & Raab, 2010). Conflict with other team members creates the need to engage in conflict management activities and can therefore be seen as a job demand related to teamwork. We expect that interpersonal conflict is especially salient in settings where employees have a highly fragmented time distribution across various teams. Multiple team membership

creates high cognitive demands for employees because they have to shift their attention and allocate their time across various teams, and their mental models tend to become more inconsistent, leading to confusion, misunderstanding, and conflict (Mortensen, 2014).

Furthermore, the amount of resources that team members spend on a given team influences the attention given to team processes in that team (Tannenbaum et al., 2012). Attention diffusion across teams leads to impaired teamwork processes (e.g., miscommunication, lack of synchronization of members' actions) and as a consequence employees may engage in arguments with and experience incivility from teammates. Consistent with this claim, it has been found that teams fare better if their team members spend most of their time on the focal team (Cummings & Haas, 2012). When team members spend more time together, interactions go beyond a task focus and include socializing and becoming familiar with each other. In contrast, when multiple teams put pressure on members' schedules, members will use their time together as efficiently as possible. Moreover, in a situation of time fragmentation across teams, interpersonal frictions emerge because members are under time pressure and might be frustrated by members' unequal time allocation and contributions to the focal team. Finally, disagreements could arise in the goal setting process because members may differ in their goal preferences and priorities when they spend a considerable amount of time on other teams as well (that is, these teams are likely to pursue different proximal goals). We put forward the following hypothesis.

> *Hypothesis 1c:* Fragmentation of time across teams is positively associated with conflict experienced with team members.

Hence, in line with the role strain perspective on multiple roles, we expect that employees will perceive multiple team membership as a job demand. We argue that fragmentation of time is associated with more frequent and effortful switching between team contexts and this adds to employees' demands. Specifically, we are hypothesizing that the fragmentation of time across multiple teams is associated with an increase in taskwork demands (i.e., task load) as well as teamwork demands (i.e., team process load and interpersonal conflict).

5.3.2 Multiple team membership and job resources

The literature on multiple team membership has focused almost exclusively on the demands associated with context switching and has neglected its association with

positive aspects of the job (i.e., job resources). According to the role accumulation perspective on multiple roles, a more equal distribution of time across a multiplicity of teams enables the individual to mobilize more resources. We have chosen to focus on two often-studied job resources within the JD-R model: social support (from team members) and autonomy.

We expect that time fragmentation across multiple teams is associated with increased social support. As Mortensen and colleagues (2007) stated, "a central benefit of MTM work is the opportunity to work with different people on many different projects and expand one's social . . . base" (p. 9). Employees who spend a considerable amount of time on a variety of teams are more embedded in the organization and therefore have more social capital. Sieber (1977) also argued that switching between multiple roles provides the individual with role-related resources (such as social support) as by-products of multiple social relationships.

Furthermore, we expect that fragmentation of time across teams enables employees to become more autonomous in their work. Interview data collected by Mortensen and colleagues (2007) showed that employees who are members of multiple teams feel like entrepreneurs who can decide which projects to take on now and in the future. As such, this autonomy provides them with an opportunity to develop the expertise they want and to shape their careers. Moreover, the load-balancing benefits of multiple team membership (O'Leary et al., 2011) suggest that this type of work design provides the individual employee with a degree of autonomy to allocate their time and attention in ways that fit their needs and schedule. Thus, following the role accumulation perspective, we expect that more job resources (in the form of social support and autonomy) are available to those employees who divide a significant amount of their work time over a rather high number of teams.

Hypothesis 2a: Fragmentation of time across teams is positively associated with social support received from team members.

Hypothesis 2b: Fragmentation of time across teams is positively associated with individual job autonomy.

5.3.3 Job demands and resources and employee well-being

The basic assumption of the JD-R model is that any type of job has work characteristics that can be categorized as either job demands or job resources. Job demands and resources are responsible for two independent psychological processes that impact on negative and positive aspects of employee well-being, respectively

(Bakker & Demerouti, 2007). Job demands promote a health impairment process that ultimately leads to stress-related outcomes such as job strain. Job resources, on the other hand, engender a motivational process and therefore tend to increase work engagement. Thus, job strain and its positive antipode work engagement are indicators of employee well-being that are assumed to exhibit different patterns of relationships with various job characteristics.

Research has provided robust empirical support for the dual processes in the JD-R model (Hakanen, Schaufeli, & Ahola, 2008; Schaufeli & Bakker, 2004). Workload has been consistently linked to exhaustion (Bakker, Demerouti, & Verbeke, 2004; Balducci, Schaufeli, & Fraccaroli, 2011; Demerouti et al., 2001). To date, however, teamwork-related job demands were seldom included in research on the JD-R model. Yet the energy drain process is also likely to apply to this particular type of job demand because multiple interactions with different co-workers from different teams require the mobilization of extra energy. Moreover, interpersonal conflict as a job demand increases employees' negative affect at work (Balducci et al., 2011; Ilies et al., 2011) and reduces affective similarity in teams (Curşeu, Pluut, Boroş & Meslec, 2015). We therefore expect that both taskwork and teamwork demands contribute to an employee's job strain. Finally, in support of the motivational process in the JD-R model, studies have consistently found an association between work engagement on the one hand and social support (Bakker et al., 2004; Schaufeli & Bakker, 2004) and autonomy (Demerouti et al., 2001; Mauno, Kinnunen, & Ruokolainen, 2007) on the other hand. We therefore propose the following hypotheses.

Hypothesis 3: Job demands (task load, team process load, and conflict) are positively associated with job strain and as such (see Hypothesis 1) mediate between fragmentation of time across teams and job strain.

Hypothesis 4: Job resources (team social support and job autonomy) are positively associated with work engagement and as such (see Hypothesis 2) mediate between fragmentation of time across teams and work engagement.

5.4 Method

5.4.1 Sample and procedure

The data were collected from employees working in a Romanian IT company that uses multiple team membership as a work design (MTM is especially common in highly competitive settings such as IT; O'Leary et al., 2011). Our initial sample

consisted of 169 respondents (92 men) with an average age of 27.9 years. Eighteen respondents did not provide us with data on their multiple teams and were therefore not included in our final sample, which consisted of 151 respondents. Participants were asked to fill out an individual questionnaire that contained items on demographic characteristics (i.e., gender, age, and job position) and further asked respondents to report the number of teams they were members of and the percentage of time they allocated to each of these teams. In addition, the questionnaire contained items on job demands (task load, team process load, and conflict), job resources (team social support and autonomy) as well as job strain and work engagement. Romanian versions of the scales in the questionnaire were developed using the method of back translation.

5.4.2 Measures

Multiple team membership. Respondents were asked to list the teams they were members of and to write down the percentage of time they spent on each team (the total amount of time is 100%). This strategy enabled us to look not only at the number of teams employees were members of but also at the way employees allocated their time across these teams. A diversity measure that captures the fragmentation of time across teams illustrates better the role switching challenges and opportunities associated with MTM than simply using the number of teams as an indicator. To illustrate, an individual who spends 50% of his or her time in one team and 50% in another team will probably have more frequent and demanding switches from one team context to another compared with an individual who spends 90% of his or her time in one team and 10% in another team. Thus, we operationalized fragmentation of time across teams as a diversity index, which was computed using Simpson's (1949) diversity formula:

$$1 - D = \frac{\sum_{i=1}^{R} n_i(n_i - 1)}{N(N - 1)}$$

Here, *i* represents a particular team, *R* is the total number of teams, n_i is the proportion of time spent on the *i*th team, and *N* is the total amount of time spent across all teams (which ideally adds up to 100). In this sample, nine was the maximum number of teams, but only a few employees (less than 10%) were part of more than three teams (average number of teams was 2.17). The value of *D* ranges between 0 (no multiple team membership) and 1. A high value for Simpson's index illustrates an even amount of time spent on several teams, and it therefore captures the fragmentation of time for the individual respondent.

Taskwork demands (task load). We selected four items from the Job Content Questionnaire (Karasek et al., 1998) to assess the pace and amount of work as a taskwork demand. An example item is "I have enough time to do everything" (reverse scored). The same response scale was used as in the original JCQ, which ranged from 1 = *strongly disagree* to 4 = *strongly agree*. The Cronbach's alpha for this scale was .66.

Teamwork demands (team process load and conflict). We evaluated demands associated with teamwork processes using 10 items from the Team Process Workload Scale (Knott et al., 2006). This scale assessed the workload or demands unique to five team processes, namely communication, monitoring, control, coordination, and leadership. We used two items for each team process. One item evaluated the extent to which the team process was required (e.g., "How much communication is required between you and other team members in order to do the job?"), and answers were recorded on a five-point Likert scale ranging from 1 = *little* to 5 = *a lot*. A second item was used to refer to the demanding nature of this process (e.g., "Is communicating with other team members easy or demanding?"), and the answers were recorded on a five-point Likert scale ranging from 1 = *easy* to 5 = *demanding*. Cronbach's alpha for this scale was .79.

We evaluated conflict with team members using four items from Spector and Jex' (1998) Interpersonal Conflict at Work Scale. We adapted the items to reflect conflict with team members rather than people at work in general. An example item is "How often do you get into arguments with team members at work?" Responses were given on a five-point Likert scale (1 = *little*, 5 = *a lot*) and Cronbach's alpha was .81.

Social support from team members. The instrument for team social support was self developed, starting from existing items from scales such as the Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet, & Farley, 1988) and the Survey of Perceived Organizational Support (Eisenberger, Huntington, Hutchison, & Sowa, 1986). We adapted these items to the team context, so that the 20 items in total referred to the extent to which team members provided the employee with help or support. Following House (1981), the items measured four different types of social support, namely emotional support (e.g., "My team members care about my general satisfaction at work"), instrumental support (e.g., "My team members help me when I have a job-related problem"), informational support (e.g., "My team members bring to my attention information that may be useful for my work"), and appraisal support (e.g., "My team members appreciate my contribution to the teamwork"). Answers were recorded on a seven-point Likert scale ranging from

1 = *strongly disagree* to 7 = *strongly agree*. Internal consistency reliability analysis revealed a Cronbach's alpha of .91 for this scale.

Job autonomy. We used the nine-item autonomy scale from the Work Design Questionnaire (Morgeson & Humphrey, 2006), which assessed autonomy with respect to work methods (e.g., "The job allows me to decide on my own how to go about doing my work"), decision-making (e.g., "The job allows me to make a lot of decisions on my own"), and work scheduling (e.g., "The job allows me to decide on the order in which things are done in the job"). Responses were given on a scale from 1 = *strongly disagree* to 5 = *strongly agree*. We found a high Cronbach's alpha of .92 for this scale.

Job strain. We used the six items representing the anxiety-contentment axis of the Affective Well-Being Scale to measure job-related strain (Warr, 1990). Respondents were instructed to think of the past few weeks and reflect on how much of the time their job made them feel each of the listed adjectives (e.g., tense, contented). Responses to the positive items were reverse scored, so that high scores indicated job strain. Answers were given on a seven-point Likert scale ranging from 1 = *never* to 7 = *every day*. The scale had a good Cronbach's alpha of .84.

Work engagement. We evaluated work engagement with six items directly taken from the Utrecht Work Engagement Scale (Schaufeli et al., 2006). An example item is "At my work, I feel bursting with energy." Answers were recorded on a seven-point Likert scale, where 1 = *never* and 7 = *every day*. The Cronbach's alpha was .90.

We factor analysed all items from the scales mentioned above, to test the proposed underlying dimensions of our instruments. Items on job demands were expected to result in three factors (task load, team process load, and conflict with team members), items on job resources should reflect team social support and job autonomy, and items on well-being were expected to result in the factors of job strain and work engagement. We followed a confirmatory approach with five distinguishable measurement models, starting with the unidimensional model and ending with our hypothesized seven-factor model. The results (see Table 5.1) indicated that the seven-factor model provided the best relative fit to the data.

TABLE 5.1

Nested model comparisons based on CFA

Model	Chi-square[a] (df)	TLI[a]	CFI[a]	RMSEA[a]	AIC	Chi-square difference test
M1: 1-factor	5664.8 (1652)	.22	.27	.120	6018.8	–
M2: 3-factors (JD + JR + WB)	4752.8 (1649)	.40	.44	.106	5112.8	M2-M1 = 912***
M3: 5-factors (TL + TPL + Co + JR + WB)	4391.9 (1642)	.46	.50	.100	4765.9	M3-M2 = 360.9***
M4: 6-factors (TL + TPL + Co + TSS + Au + WB)	3668.7 (1637)	.60	.63	.086	4052.7	M4-M3 = 723.2***
M5: 7-factors (TL + TPL + Co + TSS + Au + JS + WE)	3347.2 (1631)	.66	.69	.079	3743.2	M5-M4 = 321.5***

Note. JD = job demands. JR = job resources. WB = well-being. TL = task load. TPL = team process load. Co = Conflict with team members. TSS = team social support. Au = job autonomy. JS = job strain. WE = work engagement. TLI = Tucker-Lewis Index. CFI = Comparative Fit Index. AIC = Akaike Information Criterion.
[a] We were interested in relative rather than absolute model fit because we compared nested models to identify the most optimal number of underlying dimensions.

****p* < .001.

5.5 Results

Table 5.2 includes the descriptive statistics and the correlational matrix for all study variables.

TABLE 5.2

Descriptive statistics and bivariate correlations

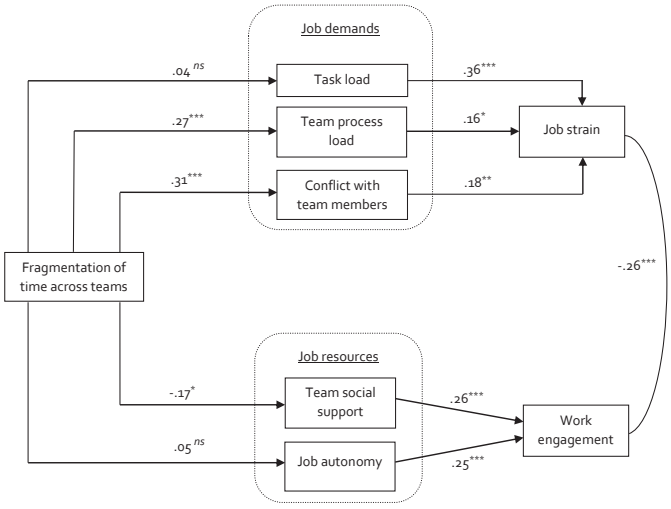
	M	*SD*	1	2	3	4	5	6	7	8
1. Fragmentation of time across teams	.23	.22	–							
2. Task load	2.72	.44	.04	–						
3. Team process load	2.43	.63	.26**	.29**	–					
4. Conflict with team members	1.42	.55	.30**	.03	.30**	–				
5. Team social support	5.05	.63	-.14†	.06	-.11	-.25**	–			
6. Job autonomy	3.66	.65	.07	-.03	.08	-.06	.24**	–		
7. Job strain	2.96	1.05	.09	.42**	.33**	.26**	-.16*	-.08	–	
8. Work engagement	5.41	1.09	.03	-.05	-.09	-.19*	.35**	.32**	-.31**	–

†*p* < .10. **p* < .05. ***p* < .01.

In order to explore how multiple team membership related to the dual processes in the JD-R model, we tested a path model that associated multiple team membership with a set of job demands and job resources, which in turn predicted employee well-being. Data analyses were performed using Structural Equation Modelling in AMOS version 19, a statistical technique that allowed us to test multiple (indirect) interrelations simultaneously (Byrne, 2010). It also enabled us to specify covariances between the job demands and the job resources in our model. In addition, we allowed for a covarying association between job strain and work engagement because these variables are so-called antipodes as indicators of well-being (Schaufeli et al., 2006). The results of the path analysis are shown in Figure 5.1.

FIGURE 5.1

Results of the path analysis



Note. Model fit: Chi-square = 19.00 (p = .17); TLI = .91; CFI=.97; RMSEA=.046. Standardized path coefficients are shown.
*p < .05. **p < .01. ***p < .001.

In order to determine whether the hypothesized model was congruent with the data, we used the chi-square value as well as two categories of fit indices: absolute fit indices illustrate how well the covariances specified in the model fit the covariances in the data, whereas incremental fit indices compare the tested model to the null model (Widman & Thomson, 2003). The chi-square test pointed to a good global model fit because the hypothesized model was not significantly different from the data ($\chi^2(14)$ = 19.004, p = .17). In line with previous research (see Jackson, Gillaspy, & Purc-Stephenson, 2009), we have focused on the Root Mean Square Error of

Approximation (RMSEA) as an absolute fit index and on both the Tucker-Lewis Index (TLI) and the Comparative Fit Index (CFI) as incremental fit indices. These values also indicated a good model fit (RMSEA = .046; TLI = .91; CFI = .97).

We expected that fragmentation of time across multiple teams would be associated with higher taskwork-related and teamwork-related job demands. We found that time fragmentation was positively associated with job demands related to team processes (Hypothesis 1b; $p < .001$) as well as with conflict with team members (Hypothesis 1c; $p < .001$). The relationship between multiple team membership and task load was not significant though ($p = .615$); therefore, Hypothesis 1a was rejected. Hypothesis 2 stated that fragmentation of time across teams would be positively associated with job resources. We found a significant association ($p = .034$) between time fragmentation and social support from team members (Hypothesis 2a), yet the relationship was negative and therefore in the opposite direction of what we expected. We also did not find support for Hypothesis 2b, since multiple team membership was not significantly associated with more job autonomy ($p = .507$). In line with Hypothesis 3, all three job demands contributed significantly to job strain ($p < .001$ for task load, $p = .030$ for team process load, and $p = .008$ for conflict). We also found support for Hypothesis 4 because both social support ($p < .001$) and autonomy ($p < .001$) were positively associated with work engagement. We can conclude that fragmentation of time across teams had a positive indirect effect on job strain (mediated by teamwork-related job demands) and a negative indirect effect on work engagement (mediated by social support).

5.5.1 Robustness checks

Although the causal sequencing from job demands and resources to job strain and work engagement is aligned with a well-tested theoretical model (i.e., JD-R model), we draw on a method described by Antonakis, Bendahan, Jacquart, and Lalive (2010) to back up our causal claims with respect to the hypothesized paths in the model. These authors presented a method that would enable researchers to make explicit causal claims when estimating models from correlational data. Our data come from a cross-sectional design and therefore causal interpretations in our model are problematic. According to Antonakis and colleagues (2010), however, the coefficients of job demands and resources "could be interpreted causally *if* an exogenous source of variance . . . were found that strongly predicts *x* [job demands and resources] and is related to *y* [job strain and work engagement] via *x* only" (p. 1101). We should emphasize that our independent variable (MTM) is a work design feature unlikely to be influenced by the other variables included in the model and

unlikely to be correlated with omitted causes of our dependent variables. MTM also satisfies the condition that it should only be related to well-being through job demands and resources (we tested a reversed mediation model and found that the standardized path coefficients from MTM to both job strain and work engagement were not significant). Thus, we believe that MTM is an exogenous source of variance and thus makes for an appropriate instrumental variable that enables us to make causal claims regarding the associations between job demands and job strain on the one hand and job resources and work engagement on the other hand.

To correct for measurement error and common source variance, we also tested our hypothesized model using a latent variable approach. MIMIC (multiple indicators multiple causes) models are a special case of structural equation models, involving latent variables that are predicted by observed variables (Jöreskog & Goldberger, 1975). MIMIC models have both a structural component, which specifies the causal relations between exogenous and endogenous variables, and a measurement component, which relates each latent variable to a set of indicators. As such, the disturbances of the latent endogenous variables reflect only omitted causes and not measurement error (unlike ordinary path models) (Kline, 2005). MIMIC models are therefore said to yield estimates of path coefficients in the structural part of the model that are corrected for measurement unreliability in the independent and dependent variables.

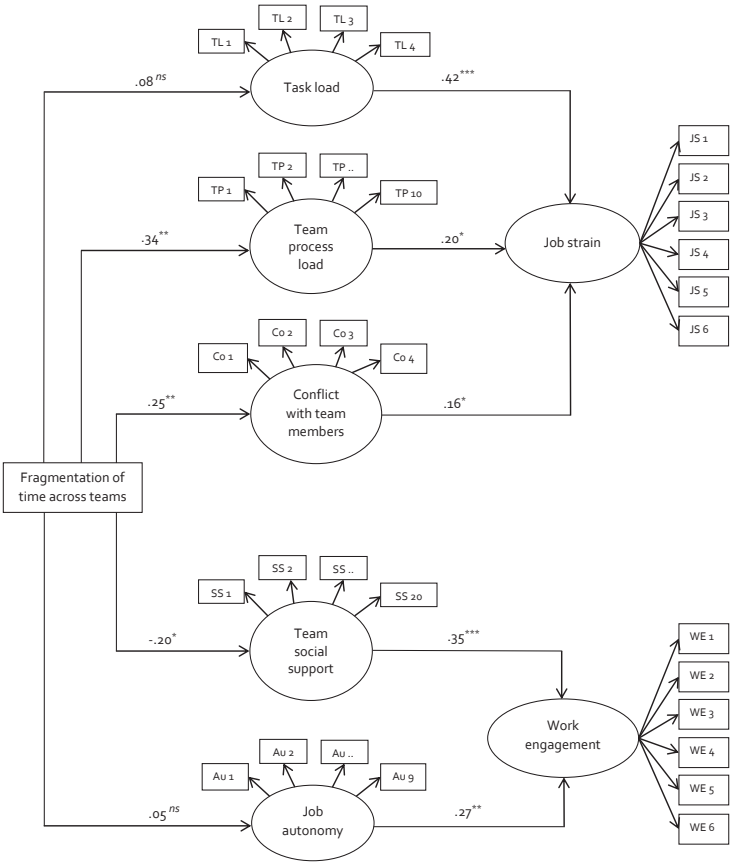
Another advantage of MIMIC modelling is its ability to correct for common source variance. Our data on demands, resources, job strain, and work engagement stem from a single source, and the endogeneity bias (i.e., variables are affected by a common source factor) therefore poses a problem. Researchers generally model a latent common factor to account for common variance, yet Antonakis and colleagues (2010) argued that one cannot remove the common source bias with this procedure and they provided an alternative solution. One statistical way to control for the common source or common method problem is to model exogenous sources of variance (Antonakis et al., 2010). As noted, these so-called instrumental variables should relate strongly to the independent variables and only to the dependent variables via the independent variables. We have argued that multiple team membership is such an exogenous variable and it can therefore correct the estimates for the relationships between job demands and job strain and between job resources and work engagement.

Thus, based on the logic as described by Antonakis and colleagues (2010), we used a latent variable approach with multiple team membership as an instrumental variable. Consistent with the CFA results, our MIMIC model contained one

exogenous observed variable (MTM) and seven latent factors with a set of reflective indicators (items) for each. We modelled three latent factors for job demands, namely task load (with four indicators), team process load (10 indicators), and conflict with team members (four indicators). In addition, two latent factors were modelled for job resources, namely team social support (20 indicators) and job autonomy (nine indicators). Finally, job strain and work engagement were modelled as latent factors with six indicators each. The model and analysis results can be found in Figure 5.2.

FIGURE 5.2

Test of MIMIC model



Note. Observed variables are depicted in rectangles. Latent (unobserved) variables are depicted in circles. For reasons of parsimony, error terms of the endogenous latent factors and reflective indicators are not depicted in the model. Standardized path coefficients are shown.

*$p < .05$. **$p < .01$. ***$p < .001$.

Our earlier reported results from the path analysis were found to be robust; results indicated significant effects of time fragmentation on team process load (p = .002), conflict with team members (p = .004), and team social support (p = .022), but not on task load (p = .57) and job autonomy (p = .42). Furthermore, we found that job strain was significantly predicted by task load (p < .001), team process load (p = .029), and conflict with team members (p = .048), while work engagement was significantly influenced by team social support (p < .001) and job autonomy (p = .002).

The test of a MIMIC model provided us with an important robustness check of our findings because (a) using a latent variable approach with a set of reflective indicators for each latent factor yields consistent estimates that are free from measurement error (Kline, 2005) and (b) including multiple team membership as an instrumental variable purges the common source bias from endogenous variables (Antonakis et al., 2010). We can conclude that the associations between job demands and job strain and between job resources and work engagement were not explained by common source variance.

5.6 Discussion

Organizational hierarchies are increasingly flatter as organizations adopt team-based forms of work design, and research has extensively explored the consequences of teamwork for organizational performance (Delarue et al., 2007). Whereas most research adopts a system-level perspective and focuses on how to coordinate organizational work among teams (see for example the literature on multi-team systems), literature on multiple team membership (MTM) generally goes beyond this systemic perspective and focuses more on the individual who is simultaneously a member of more than one team. Although the need to understand the effects of multiple team membership has increased as a consequence of its widespread adoption in modern organizations, it is a topic that has been largely overlooked in research and we therefore lack a clear understanding of the individual costs and benefits associated with working concurrently in multiple teams.

The aim of this study was to explore the demanding and resourceful aspects of multiple team membership for employees. Multiple team membership as a work design feature is likely to influence the psychosocial work environment of employees, and we therefore drew on the framework of the JD-R model in exploring how multiple team membership related to a set of job demands (task load, team process load, and conflict with team members) and job resources (team social support and

job autonomy). We have conceptualized multiple team membership as fragmentation of time across teams and have systematically modelled both negative (in line with the role strain perspective) and positive (in line with the role accumulation perspective) consequences of time fragmentation. We have argued that employees who distribute their time more evenly across a number of teams experience more frequent and effortful switching between team contexts, adding to the employee's job demands. At the same time, we expected that spending a considerable amount of time on a number of teams enriches the employee's social network and increases opportunities to become more autonomous in one's job.

Our findings indicated that MTM was perceived as a job demand rather than a job resource. Specifically, as members had to distribute their time more equally over a number of teams, they experienced their work as more demanding in terms of teamwork (but not taskwork). It seems that when employees needed to distribute their personal resources (e.g., time and energy) to multiple teams, they experienced more demands associated with team processes (such as communication and coordination) as well as more interpersonal demands because of conflict with team members. Subsequently, employees who spent a considerable amount of time on multiple teams suffered from increased job strain. These findings were in line with the role strain perspective on holding multiple roles simultaneously (Goode, 1960; Marks, 1977).

We did not find a positive association between the fragmentation of time across teams and task load (i.e., increase in the pace and volume of work). It is possible that various teams held a productive relationship with each other in such a way that time fragmentation did not simply add to the employee's workload but helped in executing tasks (Matthews et al., 2011). Furthermore, spending time on multiple teams may have provided the individual with load-balancing opportunities (O'Leary et al., 2011). By avoiding unproductive downtime and slack in task loads, members of multiple teams can use their time more efficiently. It seems that the benefits of load balancing and finding efficiencies between team contexts may have compensated for the cognitive costs associated with (shifting attention between) multiple roles.

Based on the role accumulation perspective (Marks, 1977; Sieber, 1974), we expected that multiple team membership would provide the individual with more job resources. Our results, however, showed that multiple team membership did not influence job autonomy and that members of multiple teams received less rather than more social support from their team members. Although employees who worked in multiple teams had access to more potential sources of social support, it seems that

their team members did not exhibit more supportive behaviours. An explanation for this finding might be that teams become more task-focused and less relationship-focused when they have only limited time together (O'Leary et al., 2011). Finally, our hypothesis that fragmentation of time across teams would enable the employee to become more autonomous (in choosing projects, scheduling work, etc.) was not supported. It may be that – in the eyes of the individual employee – teams were another mechanism of organizational control (Sewell, 1998).

Our model development was guided by role theory, which states that a multiplicity of roles holds the potential to enhance well-being (role accumulation perspective) as well as to impair well-being (role strain perspective). We have argued that employees who are members of multiple teams hold different roles. In our sample, being a member of more than one team increased job demands (associated with teamwork) and the subsequent job strain, while multiple team membership reduced job resources (social support from team members) and the consequent work engagement. As such, our findings support the role strain rather than the role accumulation perspective on multiple team membership. We can therefore conclude that multiple team membership is a work design that negatively impacts individual employees because it increases inter-role conflict in a team-based work context.

In addition to the main conclusion that multiple team membership is perceived as a job demand and is associated with the experience of inter-role conflict, our paper makes two further contributions to the literature. Our study is one of the first to distinguish between teamwork and taskwork demands. We contend that – in light of the increasing use of teamwork – the distinction between teamwork and taskwork (demands) is relevant and insightful and should be considered in future studies on, for instance, the JD-R model. Moreover, we have focused on a relatively understudied source of social support, namely team members. The interdependence and interaction required in teamwork increase the likelihood that social support is provided and received in the form of instrumental support, such as workload sharing, or emotional support. For the purposes of this study, we have developed a scale to measure social support from team members, which could be used in future studies as well[4].

Although we did not find that multiple team membership increased social support or autonomy, it may have provided employees with other resources that were not examined in the present study. We therefore suggest that future research

[4] This scale, and other supplemental materials, can be found as part of our published version in *Group Dynamics: Theory, Research, and Practice*.
(http://dx.doi.org/10.1037/gdn0000016.supp)

extends our model with other job resources, such as positive feedback, supervisory coaching, and opportunities for skill utilization. The latter appears especially relevant in multiple team membership settings, where employees engage in a variety of projects and therefore are better able to fully use their range of knowledge, skills, and abilities in their work. Although not typically considered as a job resource in the JD-R model, information or knowledge is also a socially valued resource and an asset for both individual and group performance (Ancona & Caldwell, 1992). Switching between team contexts and participating in multiple projects may enable employees to access such resources and engage in cross-project learning (O'Leary et al., 2011). Finally, going beyond our distinction between taskwork and teamwork, we advocate for including job demands such as role ambiguity, work-family interference, and emotional demands as possible outcomes associated with multiple team membership.

In addition to extending our set of job demands and job resources, future studies on the consequences of multiple team membership should focus on process variables and contingency factors. Inclusion of measurements for load-balancing opportunities and attention diffusion would shed light on the mechanisms underlying the effect of multiple team membership on workload. Furthermore, frequency of context switching and the degree of difference between team contexts (e.g., in terms of tasks, technologies, and locations) are likely to be contingencies for treating multiple team membership as a demand or resource. For instance, the effect of multiple team membership on coordination costs is likely to be stronger for employees who make frequent rather than infrequent role transitions. Also, relationships with team members may become shallow when an employee spends only limited uninterrupted time in a single team, negatively impacting social support. Finally, curvilinear relationships between multiple team membership on the one hand and job demands and resources on the other hand need to be further addressed (O'Leary et al., 2011). A balanced sample in terms of the distribution of number of memberships would allow researchers to test such relationships.

5.6.1 Limitations

Our paper is based on a cross-sectional field study in which we did not directly manipulate our independent variable. This poses problems with respect to the causal ordering of the variables in our model. The exogenous variable in our model is a work design feature that is unlikely to be influenced by the perceived job demands and job resources investigated in this paper, but the problem of reversed causation remained for the mediators and the dependent variables. Nevertheless, we have addressed this

study limitation comprehensively and have backed up our causal claims by applying the framework described in Antonakis and colleagues (2010). Moreover, the conceptualization of causal ordering in our theoretical model fits with the JD-R model, and the causal linkages in this model have received considerable attention in previous empirical research.

Another limitation of our study is that we relied exclusively on self-report data. Therefore, the mediators and dependent variables are susceptible to common method and common source bias. However, we used varying response scales for the study variables to deal with the common method bias and we have extensively addressed the issue of common source variance by using a latent variable approach and by applying Antonakis and colleagues' (2010) method of correcting for endogeneity bias.

As a final limitation, we did not collect data on the size and member composition of the teams to which employees belonged. Subsequently, we do not know the extent to which memberships overlapped across multiple teams in the company. Given that our data were collected in a single IT company, rather homogenous with respect to its operations, it is not unlikely that employees encountered some of their co-workers in several of their teams and that the type of tasks performed by different teams were relatively similar. When the same members collaborate repeatedly in various teams, teamwork-related demands are likely to be lower, while an employee working in multiple teams with similar tasks may experience lower taskwork demands. Future research could explore in more detail, using a social network analysis, the overlap in multiple team memberships and how this relates to job demands and resources. Furthermore, we focused on time fragmentation in our conceptualization of multiple team membership, yet in other larger multinational companies different indices (i.e., type of task) could be used to capture various dimensions of multiple team membership. Future research could therefore explore different ways of conceptualizing and operationalizing MTM.

5.6.2 Implications for theory

It goes without saying that the new ways in which teams are used in practice create the need to refine our theories on teams and group dynamics. The traditional view of teams is one of "stable, nonoverlapping, and collocated membership, whose time is spent collaborating with a clearly defined set of teammates" (Mortensen, 2014, p. 5). This characterization is increasingly at odds with contexts such as multiple team membership settings. We would not go as far as to argue that the applicability of our theories is threatened or that the external validity of previous findings is at risk,

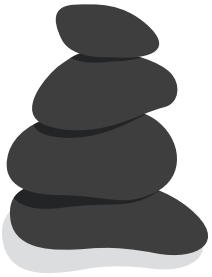
but we do find it vital to reflect on the implications of multiple and overlapping team memberships for scholarly work on group dynamics and to look critically at underlying assumptions present in our research. The findings of this study show that multiple team membership has considerable consequences for the individual employee by making their job more demanding. It has also been found that multiple team membership results in membership model divergence, which in turn negatively influences team processes and outcomes (Mortensen, 2014). Given that multiple team membership settings have become more prevalent in recent years, and because initial empirical work is showing that multiple team membership has consequences at both the individual and team level, we strongly advice that future studies (and theories) on teamwork and group dynamics consider that employees often are part of more than one team and that membership is not a given.

5.6.3 Practical implications

The implication of our findings for practitioners is that teams and their members should receive support that facilitates working in multiple teams and somehow reduces the demanding nature of multi-teaming. To this end, Mortensen and colleagues (2007) have identified six conditions that may increase the effectiveness of multiple team membership. In particular, our findings underscore their conclusion that (1) teams need to build trust and good relationships and (2) organizations should adopt appropriate communication and information systems. First, our results indicated that multiple team membership poses problems for interpersonal dynamics, in that these employees experienced more conflict with team members and also perceived less support from team members. Especially in early stages of adopting multiple team membership, organizations could therefore appoint team coaches who can assist in activities such as conflict management. Second, we found that employees that were members of multiple teams experienced teamwork processes as more demanding. It thus seems that collaboration technologies are essential in MTM contexts in order to facilitate communication and coordination processes. Implementing such conditions holds the potential to not only increase the effectiveness of multiple team membership for organizations but also reduce its negative effects on employee well-being.

CHAPTER 6

General discussion and conclusion



By now, I hope I have delivered on the promise made in the title of this dissertation, namely to provide a balanced examination of inter-role conflict. Of course, the concept of balance is inherent to engagement in multiple roles; people aim to participate in different life domains in a satisfactory manner while keeping the members of these life domains (i.e., their bosses, their spouses) happy. In a similar vein, I wanted to achieve balance in my examination of inter-role conflict. The preceding chapters have focused on different forms of inter-role conflict in various settings, moving from the work-family interface in Chapters 2 and 3 to an academic context in Chapter 4 and ultimately to a team-based organizational context in Chapter 5. In each of these chapters, I have attempted to address some of the shortcomings of prior research in order to provide a more comprehensive (that is, balanced) coverage of the topics studied.

First, in the empirical chapters on the work-family interface, I have focused on both partners of the dual-earner couple and studied supportive exchanges from the perspective of both recipient and provider, in order to overcome the one-sided focus that is dominant in prior research. Second, in the chapter on social-study conflict among university entrants, the traditional insights from sociological theories of inter-role conflict were complemented with motivational conflict theories. In doing so, a more accurate and inclusive conceptualization of inter-role conflict was provided. Moreover, social-study conflict was examined as a bidirectional construct; I examined how the social domain interferes with the study domain (social-to-study conflict) and how the study domain interferes with the social domain (study-to-social conflict). Third, in the final chapter on multiple team membership, I have examined two competing perspectives on multiple roles alongside each other, namely the "scarcity" or role strain perspective and the "expansion" or role accumulation perspective. Taken together, I believe these study characteristics have made for a balanced examination of inter-role conflict in this dissertation.

6.1 Answers to Research Questions

The preceding empirical chapters have addressed a set of research questions that were presented in the introductory chapter of this dissertation. Below I will provide a brief summary of the main findings to answer these research questions.

Research Question 1: To what extent does social support buffer the daily work-family conflict process?

In Chapter 2, we have examined the daily process through which work interferes with family. Specifically, we studied the effect of workload on job strain and further how such strain influences family life on a day-to-day basis. Consistent with the Work-Home Resources model (Ten Brummelhuis & Bakker, 2012), it was found that workload depletes personal resources such that employees become emotionally exhausted and therefore experience work-family conflict at home. It follows that spillover involves a process with daily events and experiences in the work domain as well as in the family domain (Amstad & Semmer, 2013; Ilies, Schwind, & Heller, 2007). Given that people spend a considerable amount of time in both the work and family domains throughout the day, we proposed that both work-based support and family-based support exert an influence on the spillover process yet within their respective domains. As such, we were examining the role of social support as a buffering resource in everyday high-load situations.

In support of our hypotheses, the results indicated that social support at work and at home both play a pivotal role as buffers in the daily work-family conflict process. First, we found that on days when employees received social support from work sources, the consequences of heavy workloads were less severe so that employees had less psychological strain to carry home at the end of the workday. Second, we found that on days when employees felt emotionally exhausted from work, a supportive spouse buffered the employee such that psychological strain from work did not interfere with family life. Jointly, these results suggest that, within their respective domains, the supervisor and the spouse can protect the employee from the negative spillover from work to family; social support at work and at home exert dual-buffering effects on the work-family conflict process in such a way that (a) social support from one's supervisor diminishes the detrimental effect of workload on emotional exhaustion and (b) social support from one's spouse protects a strained employee from experiencing work-family conflict.

> *Research Question 2:* What are the determinants of social support provision in dual-earner couples?

Chapter 2 extensively discussed research on social support, which has provided empirical evidence for the notion that social support has the potential to diminish stress (Van der Doef & Maes, 1990) and work-family conflict (Kossek, Pichler, Bodner, & Hammer, 2011). It is, however, remarkable that this stream of research has focused almost exclusively on the recipient of social support. In Chapter 3, we therefore took on the perspective of the provider of social support and put forward a model of spousal support provision in dual-earner couples.

We first of all set out to examine why spouses provide social support to each other on some days but not on other days, thus investigating daily determinants of spousal support provision. Here, we proposed that support provision in the family domain is influenced by work-based factors (i.e., cross-domain mechanisms) and that support provision is influenced not only by factors related to the self but also by factors related to the partner (i.e., cross-spouse mechanisms). Specifically, we hypothesized that support provision would be predicted by provider's work-family conflict (resource drain hypothesis), recipient's emotional exhaustion (need-for-support hypothesis), and provider's received social support (reciprocity hypothesis). We found statistical support for all three determinants, suggesting that (a) support provision is constrained by the provider's personal resources, (b) social support resources are more likely to be invested when the recipient is emotionally exhausted and thus in need of support, and (c) norms of reciprocity are drivers of support provision.

Research Question 3: Which benefits (if any) are associated with providing spousal support?

In addition to examining daily determinants of support provision, we focused on benefits of supportive exchanges for both members of the dual-earner couple, thus testing dual outcomes of support provision. Building on the growing body of research that examines benefits of prosocial behaviours (e.g., Brown, Nesse, Vinokur, & Smith, 2003), we argued that the act of providing social support can replenish or even produce personal resources, which in turn should increase the provider's level of well-being. In this study, we focused on relationship satisfaction and life satisfaction as well-being outcomes. Consistent with our hypotheses, the results indicated that providing social support had a relationship-enhancing function for the provider and also led to more positive evaluations of life in general. As mentioned, we studied the same well-being outcomes for the receiving spouse. After all, social support is generally assumed to be altruistically motivated and thus enacted with the intention to enhance the well-being of the recipient. Interestingly, we found stronger beneficial effects for providing support than for receiving support. In the least, these findings suggest that supportive exchanges have benefits for the provider and that support provision is worth examining as a strategy to enhance employee well-being.

Research Question 4: What is the role of social-study conflict in explaining student stress and well-being?

In Chapter 4, we introduced the concept of inter-role conflict to the literature on student stress and well-being. Studying a sample of university entrants, we argued that this set of students is under pressure of competing role demands, as they face multiple goals and multiple action opportunities. In particular, a trade-off between study-related and social activities is likely to occur. We therefore set out to examine the extent to which these students experienced interference between the study domain and the social domain, distinguishing between social-to-study conflict (interference with the study domain) and study-to-social conflict (interference with the social domain).

We proposed that social-to-study conflict is an academic stressor because it implies that one is less able to perform the role of student, either due to activities in the social domain (resulting in lack of time or fatigue) or due to motivational interference while studying (in the face of tempting social activities). We considered study-to-social conflict as an indicator of well-being because it implies that adolescents are not able to make the most of their experiences in the social domain, which holds a central place in their lives and may provide resources (such as social support from friends) that can reduce their levels of stress.

The results indicated that interference of the social domain with the study domain was a significant predictor of both lower academic satisfaction and impaired academic performance. We therefore concluded that social-to-study conflict should be considered an additional stressor for students above and beyond study-related stressors. We further found that study-related stressors (e.g., preparing for exams) resulted in interference with the social domain, thus reducing the well-being of students. Together, these findings suggest that social-study conflict as a bidirectional construct deserves more scholarly attention in research on student stress and well-being. Specifically, we posit that inter-role conflict among students can be considered both a stressor and a well-being outcome for these individuals, depending on the direction of interference between the social and study domains.

> *Research Question 5:* To what extent is multiple team membership a demand or resource for employees?

In Chapter 5, we examined how multiple team membership relates to the dual psychological processes in the Job Demands-Resources model (Bakker & Demerouti, 2007). We tested for the effect of multiple team membership on a set of job demands (task load, team process load, and conflict with team members) and job resources (team social support and job autonomy). We argued that employees who are members of multiple teams hold different roles and our proposed model was

therefore guided by role theory, which is characterized by two competing perspectives: a pessimistic and an optimistic view on multiple role enactment (Marks, 1977). The role strain or "scarcity" perspective would argue that multiple team membership generates competing demands that imply time pressure and heavy workloads, whereas the role accumulation or "expansion" perspective would argue that multiple team membership leads to a gain in resources and therefore has the potential to enhance employee well-being.

Our findings indicated that employees perceived multiple team membership as a job demand rather than a job resource, lending support to the role strain perspective on multiple team membership. Specifically, as members had to distribute their time more equally across a number of teams, they did not have higher task loads but they did experience their work as more demanding in terms of teamwork (i.e., team processes and interpersonal demands). Multiple team membership did not influence job autonomy and negatively influenced the perception of social support from team members. We concluded that multiple team membership as a work design feature is a teamwork-related job demand and makes employees experience inter-role conflict in a team-based context.

6.2 Integration of Findings

Now that the main findings are briefly summarized, I will reflect on how the preceding chapters relate to each other in terms of theorizing and results. The empirical studies presented herein highlight different aspects that together provide a more integrative view on the themes covered in this dissertation.

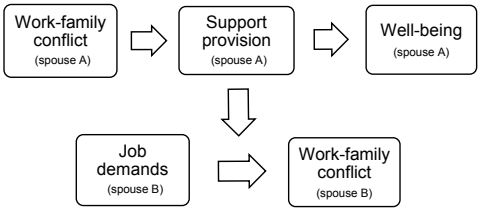
6.2.1 Social support in dual-earner couples

Chapters 2 and 3 build on each other in providing additional insights into the role of spousal support in work-family conflict among dual-earner couples. The previous section has discussed how social support buffers the daily process through which job demands negatively affect family life. It has further been discussed that the influence of job demands on the family is reflected in a person's capacity and willingness to provide social support at home; increased levels of work-family conflict – as an indicator of high job demands – are associated with diminished spousal support provision. These work-family processes are inherently manifested at the intraindividual level, yet the experiences of working spouses are closely intertwined within dual-earner couples, in that social support provided by one spouse functions as a buffer for the other spouse. Jointly, the conclusions suggest that, in dual-earner

couples, work creates the need for social support in spouse A but takes away the necessary resources for support provision in spouse B. Figure 6.1 illustrates this point, with the upper part focusing on the support-providing spouse and the lower part focusing on the support-receiving spouse.

FIGURE 6.1

Social support in dual-earner couples



In Chapter 2, we built an argument as to why and how social support buffers the daily process through which work interferes with family. In doing so, we elaborately discussed the buffering model of social support as proposed by Cohen and Wills (1985). In the subsequent chapter on support provision, however, we drew on the main-effect model of social support in hypothesizing that spousal support may directly enhance the well-being of the receiver. Are then the main-effect model (social support as an antecedent to well-being) and the buffering model (social support as a moderator for the relationship between demands and well-being) reconcilable? I believe they are; social support holds the potential to protect people in the presence of demanding circumstances but can also benefit the receiver (and provider) in the absence of stress and strain.

Other roles of social support have also been proposed and tested (see e.g., Carlson & Perrewé, 1999), often with the aim to identify how social support is best viewed. However, the 'accurate' conceptualization may be very much dependent on a number of factors, perhaps most importantly the notion of time. House (1981), for example, stated that the buffering effect of social support is more likely to play out in short-term processes. As such, methodological characteristics can work against the testing of interaction effects and can bias results towards main-effects conclusions. This is why we recommended in the chapter on dual-buffering effects of social support to adopt an alternative conceptualization (social support as a volatile resource) and methodology (experience sampling methodology) in order to build on previous cross-sectional studies. All in all, I believe that both the main-effect model and the buffering model capture actual mechanisms of social support in processes related to stress and well-being.

6.2.2 Conceptualizing inter-role conflict

Chapters 2 and 3 show that job demands and the subsequent job strain result in work-family conflict, which in turn influences supportive behaviours in the family domain. These findings are consistent with traditional models of work-family conflict (Frone, Russell, & Cooper, 1992; Frone, Yardley, & Markel, 1997), identifying on the one hand *work* antecedents (overload and other job stressors) and on the other hand *family* outcomes (family behaviours and distress) of this form of inter-role conflict. This is not to say that work-family conflict (and inter-role conflict more generally) can only be viewed as an intervening variable between demands and impaired outcomes. I believe the remaining chapters have shed light on this issue.

First of all, Chapters 4 and 5 indicate that inter-role conflict can be seen as a demand *an sich*. This is consistent with research on the Job Demands-Resources model that has considered family-to-work conflict as a demand (Bakker, Demerouti, & Verbeke, 2004). For illustrating purposes, imagine that you are at work, worrying about your sick child or ruminating about an argument that you had with your spouse. Such interference is indeed a demand for employees. In a similar vein, we examined the interference of the social domain with the study domain as a demanding factor in the psychosocial environment of students. Especially if one adopts the motivational view on inter-role conflict and considers that these individuals may be torn between two alternatives (studying versus socializing) and that thoughts and feelings about the non-chosen activities are intruding, social-to-study conflict constitutes a demand for students that they need to deal with in order to prevent detrimental consequences for academic satisfaction and performance, as indicated by the results from Chapter 4. The demanding nature of multiple role enactment was more explicitly addressed in Chapter 5. We examined the demanding and resourceful aspects of multiple team membership (or multiple role enactment), drawing the conclusion that multiple team membership is for many employees a form of inter-role conflict that results in job strain. Thus, multiple team membership as a form of inter-role conflict is a demand for employees in team-based organizations. It is a form of inter-role conflict that is experienced within the work domain and, following the results from Chapter 2, will most probably lead to work-family conflict. Thus, one form of inter-role conflict – as a demand – may result in another form of inter-role conflict.

Second of all, inter-role conflict can also be conceptualized as a well-being construct, as we proposed in the chapter on social-study conflict. In the introductory chapter of this dissertation, I argued that participation in different life domains fulfils people's social motives (i.e., need for affiliation) and effective performance in these

domains is critical for the well-being of individuals. As such, inter-role conflict implies impaired well-being because role performance is impeded by demands stemming from another domain. Scholars generally assess inter-role conflict directly, surveying respondents with such items as "The demands of my work interfere with my home and family life" (Netemeyer, Boles, & McMurrian, 1996), and then examining its relation with performance and satisfaction in the 'receiving' domain. An alternative would be to assess inter-role conflict indirectly, through the effect of demands in one domain on outcomes in the other domain. That is, when a person does not perform household chores (production outcome), is not a supportive spouse (behavioural outcome), or is dissatisfied with familial relationships (attitudinal outcome), and if these diminished family outcomes are due to work, this *is* work-family conflict. This point is further illuminated by the Work-Home Resources model as proposed by Ten Brummelhuis and Bakker (2012). The authors view inter-role conflict not so much as a variable in itself but rather as a process "whereby demands in one domain deplete personal resources, resulting in diminished outcomes in the other domain" (p. 549). In essence, inter-role conflict refers to a situation in which a person is not able to make the most out of his or her experience in a domain. If that domain holds a central place in the person's life, it means that inter-role conflict is an indicator of well-being, and this underlies our conceptualization of study-to-social conflict as a well-being construct in Chapter 4.

Thus, the examination of different forms of inter-role conflict as conducted in this dissertation has underlined the complex nature of the construct. Traditional models of work-family conflict (as the most often studied form of inter-role conflict) placed the variable between contextual demands and well-being outcomes. I would argue that such modelling is limited and overlooks the demanding nature of inter-role conflict as well as how it can be an indicator of well-being in and of itself.

6.3 Practical Implications

This dissertation has provided insights that help people become aware of the processes through which their engagement in multiple life domains affects their well-being and may result in inter-role conflict. I believe three important questions are to be asked in order to translate the scientific findings into practice and be able to take further steps towards improving balance and well-being. First, which factors play a role in inter-role conflict? Second, which of these factors can be influenced and which factors cannot be influenced? Third, how can the modifiable factors be influenced and by whom?

Meta-analyses have shown that inter-role conflict is explained by demographic factors, personality factors as well as factors specific to the respective domains (Byron, 2005; Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011). This dissertation has focused exclusively on the latter, that is, domain-specific factors. Our findings indicate that (a) workload predicts work-family conflict, (b) academic stressors predict social-study conflict, and (c) teamwork-related demands and interpersonal conflicts turn multiple team membership into a form of inter-role conflict. We have also elaborately examined the role of social support (from supervisors, co-workers, spouses, and team members) in inter-role conflict and well-being. In essence, the identified factors represent demands and resources from different life domains. It is these (and of course many more) demands and resources that play a major role in bringing about or reducing inter-role conflict.

Unlike demographic factors and an individual's personality, such contextual demands and resources can be influenced by domain members. As such, interventions should focus on reducing demands (e.g., workload or ostracism) and increasing resources (e.g., social support or performance feedback). However, as much as we want to, high workloads or stressful examination periods or emotional family circumstances cannot be avoided at all times; it is impossible to not go through periods in which pressures are high and stressors are salient. Then, it becomes imperative to provide people with resources to deal with such demands. If resources indeed have the ability to buffer the detrimental effects of high demands, most attention should be devoted to enhancing people's resources while keeping demands at a manageable level.

People are first and foremost recommended to establish a supportive home environment in which they fare well and can draw support from their family members. But it is equally important to build and enact a social support system at work, and this is where co-workers and especially supervisors play an important role. Management needs to implement programs that would assist in the development of such a social support system at work, on the one hand training supervisors in how to provide support to their subordinates and on the other hand stimulating supportive co-worker exchanges. At the same time, when it comes to managing demands, employees need to receive assistance in doing their work and handling any issues that might arise during work. This seems to be particularly important in organizations that adopt multiple team membership as a work design. Here, management should pay special attention to the facilitation of teamwork processes and conflict management in order to reduce the demanding nature of multiple team membership for employees. Similarly, in higher education settings, teachers and study advisors could assist

students in their schoolwork but also need to help them in handling motivational interference, for instance through the use of motivation regulation strategies.

6.4 Directions for Future Research

Research on inter-role conflict is characterized by a burgeoning amount of scholarly work on work-family conflict yet a lack of studies on other forms of inter-role conflict. More research is needed on the role balancing issues of adolescents and young adults. The research on multiple team membership is also still in its early stages. I hope that my dissertation spurs more research on these topics. At the same time, there are many more issues that I would have liked to touch upon in my doctoral research and I present these as avenues for future research in this section.

6.4.1 Theoretical frameworks and advancements

I believe future research on inter-role conflict would benefit from examining motivational mechanisms that underlie interference between domains. An integration of role conflict theory and motivational interference theory would make for a more inclusive framework for the examination of inter-role conflict. As mentioned in Chapter 4, I do not see these theoretical perspectives as colliding because they both provide valuable insights for conceptualizing inter-role conflict. Sociological theories on role conflict posit that multiple roles are likely to create conflicting demands that together put too much pressure on the individual (Marks, 1977). Theories on motivational conflict and interference propose that individuals pursue concurring goals (associated with alternative action tendencies) and non-chosen options retain their motivational power in such a way that they intrude the chosen activities (Hofer et al., 2010). Thus, a comprehensive conceptualization of inter-role conflict would be as a situation of incompatible role pressures as well as competing motivational goals (i.e., motivational interference).

Motivational conflicts have been examined mostly among students (e.g., Grund, Schmid, & Fries, 2015) because studying and leisure activities are assumed to be inherently conflicting in terms of values and goals. Although this is not necessarily the case for the work and family domains (that is, work helps individuals to provide for the family), motivational conflicts may still occur on a daily basis (e.g., one has to work late and consequently misses the planned family dinner, which makes the person feel guilty or distracted while working). Future researchers are advised to adopt measurements consistent with this motivational perspective, supplementing the well-established scales with items on motivational conflict (examples are available from

research on motivational interference while studying: see Grund, et al., 2015; Hofer et al., 2010).

Boundary theory is yet another framework applied to the study of inter-role conflict. The theory has been popular among scholars who are interested in people's preferences and strategies for managing the boundary between multiple roles. In the context of the work and family domains, for instance, research has examined individuals' choices to segment or integrate their work and nonwork roles (e.g., Ashforth, Kreiner, & Fugate, 2000). Yet the segmentation-integration continuum does not only depend on the boundary management strategies that individuals enact. Some roles or domains are more likely to be blurred than others, meaning that different forms of inter-role conflict vary regarding the extent to which roles are segmented or integrated. For instance, multiple team membership as a form of inter-role conflict occurs within the work domain, as employees have to switch frequently between team contexts, and roles therefore show a high level of integration. The experience of social-study conflict also concerns domains that are rather highly integrated due to potentially overlapping membership of domains, in that these individuals may encounter some of their friends (which would constitute the social domain) in the classroom or on campus, implying that the roles of student and friend would be blurred. Thus, the degree of segmentation/integration is in large determined by the pair of roles considered.

Even the same form of inter-role conflict may show variability on this point depending on the situation. To illustrate, compare the situations of (a) ordinary 9 to 5 workers, (b) deployed navy personnel who are on a mission for several months away from their family, and (c) employees working from home. These groups of employees all experience work-family conflict yet in differing situations, varying from a very high segmentation of domains (for navy personnel) to a very high integration of domains (for home-based workers). The segmentation-integration continuum is likely to affect the dynamics surrounding role balancing. One of the questions that arises from the previous paragraphs is whether motivational interference would be more likely when roles are highly blurred. For instance, home-based employees have many tempting activities at hand and may get distracted because of the high level of integration. All in all, I believe there is great value in incorporating aspects from boundary theory in the examination of different forms of inter-role conflict.

Finally, I also believe much is to be gained from applying the framework of the Job Demands-Resources model (Bakker & Demerouti, 2007) to different contexts or settings. Demands and resources do not only characterize the work domain but also describe the family domain, the social domain, the study domain, the team domain,

et cetera. In essence, the Work-Home Resources model (Ten Brummelhuis & Bakker, 2012) is an application of the JD-R model to the work-family interface, arguing that demands and resources in a particular domain are the starting point for conflict versus enrichment processes linking work to family or vice versa. These propositions, as well as the central proposition of the JD-R model that resources can buffer the detrimental effects of high demands, should be tested across different life domains. In examining different forms of inter-role conflict as bidirectional constructs (e.g., work-to-family conflict and family-to-work conflict), future researchers are thus encouraged to examine domain-specific demands and resources and how their interplay affects inter-role conflict.

6.4.2 Social support

Much has been written about social support in research on organizational psychology, yet I believe there are still many fruitful avenues for future research on this topic. First, while the benefits of receiving social support have been widely documented in the literature on job stress and work-family conflict (e.g., Kossek, Pichler, Bodner, & Hammer, 2011; Van der Doef & Maes, 1990), and the results from Chapter 2 indeed suggest that social support at work and at home have dual-buffering effects in preventing work-family conflict, scholars are only beginning to examine the benefits associated with providing support. The results from Chapter 3 suggest that social support can enhance the relationship and life satisfaction of the provider, but can provision of social support also function as a buffer in work-family relationships? Theory and research on the benefits of social support provision propose that helping another person is mood-enhancing and heightens or recovers self-esteem (Batson, 1998). Provision of social support thus leads to the build-up of personal resources that may make providers more resilient to demanding situations and assists them in counterbalancing resource loss. To move research on benefits of social support provision forward, it would be a fruitful endeavour to examine whether provision of social support can function as a buffer in the stressor-strain relationship.

Second, further research should distinguish between commonly studied sources of social support and devote attention to their interplay. In Chapter 2, it was found that social support from work sources and home sources complemented each other, in that they jointly buffered the work-family conflict process. Nevertheless, work and home sources of social support were not equally effective in preventing work-family conflict; social support at work *diminished* the detrimental effect of workload on emotional exhaustion, while social support at home *eliminated* the detrimental effect of emotional exhaustion on work-family conflict. Moreover, within

the work domain, supervisors appeared to be more effective sources of social support than co-workers. These results can prompt researchers to look at issues of complementarity versus substitution as well as asymmetrical effects. Theory building is also strongly recommended, to enhance our understanding of why different sources of support are not equally effective and whether they can substitute for each other as buffers of stressful events.

Third, more scholarly attention should be devoted to the contingencies inherent to the specificity model of social support (Cohen & McKay, 1984). The effectiveness of social support may depend on who gives what (how much of what kind) to whom regarding which problems (House, 1981). I believe it is important to consider these factors in order to provide a robust test of the buffering hypothesis. To the best of my knowledge, no study has yet investigated the amount of social support as a contingency. Though not easily quantifiable, social support can be offered to varying extents, depending on the frequency of supportive behaviours and the level of effort and commitment of the provider. Very little support is unlikely to be effective in enhancing psychological well-being, but can one also receive "too much of a good thing"? If so, social support should show an inverse u-shaped relationship with well-being outcomes, and this could account for some of the reverse buffering effects found in previous studies (e.g., Seiger & Wiese, 2009).

Finally, there are a number of other interesting variables that are mostly omitted from current research on social support. I believe it is imperative to evaluate motivations and perceptions underlying the exchange of social support resources. Scholars might examine to what extent helping behaviours are altruistically or egocentrically motivated. Even though Shumaker and Brownell (1984) proposed that social support is "intended to enhance the well-being of the recipient" (p. 13), individuals may be predominantly egocentrically motivated to help another person, for instance to reduce aversive arousal (Hornstein, 1982) or prevent crossover of negative emotions (Westman, 2001). Scholars must also focus on recipients' perceptions of social support and how it fits their specific needs. Good intentions from support providers do not necessarily result in positive evaluations by recipients, for instance when social support leads to negative affect associated with feelings of inferiority (Peeters, Buunk, & Schaufeli, 1995b). Moreover, receiving social support may induce tension due to feelings of indebtedness. Research thus needs to address how issues of reciprocity affect how people seek for and accept social support and how it influences their well-being. The incorporation of measurements on such factors (i.e., altruistic/egocentric motivation, feelings of inferiority and indebtedness,

overbenefitting and underbenefitting, et cetera) might offer explanations as to why effects of social support can vary.

6.4.3 Three-domain conflict

I have argued that people engage in a multitude of life domains and participation in multiple domains can become overly demanding and stressful. Researchers tend to focus on the conflicting demands of work and family (work-family conflict; Greenhaus & Beutell, 1985), work and leisure (work-leisure conflict; Rice, Frone, & McFarlin, 1992), school and leisure (school-leisure conflict; Kuhnle, Hofer, & Kilian, 2010), or work and school (work-school conflict; Markel & Frone, 1998). Nevertheless, considering that people juggle demands from many domains, it seems restrictive for researchers to focus solely on bidimensional conceptualizations of inter-role conflict. In an average week or month, people repeatedly cross the boundaries of life domains such as work, family, leisure, friends, education, religion, and sports. Demerouti (2012) recently suggested that "the self" is yet another domain, encompassing personal interests, which may be affected by work and nonwork roles. A direction for future research is thus to extend conceptualizations (and operationalizations) of inter-role conflict to include three (or more) domains and examine the negative consequences of attempting to balance these roles simultaneously. As an example, work-family-school conflict has been examined in samples of non-traditional students (Giancola, Grawitch, & Borchert, 2009; Hammer, Grigsby, & Woods, 1998). I believe such an approach would make for a more comprehensive and ecologically valid examination of inter-role conflicts.

6.5 Concluding Remarks

My aim has been to provide a balanced examination of inter-role conflict. Yet the work presented herein is by no means exhaustive of the many forms of inter-role conflict that people may experience throughout their lives. Much has been done but also much remains to be discovered. I believe it is an intriguing stream of research that will continue to provide impactful insights for lay people and practitioners alike. I surely hope that my research prompts scholars to take on the many challenges and opportunities inherent to inter-role conflict research.

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SUMMARY

In our daily lives, we repeatedly get involved in work, family, leisure, friends, education, and sports, just to name a few. One of the main reasons for the prevalence of stress in today's society is being overly engaged in too many life domains. Of course, there are many psychological benefits of multiple roles, and we find satisfaction and fulfilment in each domain. However, juggling social roles in multiple domains can become overly demanding and stressful, and that is when individuals experience 'inter-role conflict', which is the main focus of the current work. Inter-role conflict exists when participation in one role is made more difficult by virtue of participation in another. We "do it all in order to have it all" but may end up not making the most of our participation in multiple domains or may even suffer from impaired well-being. Hence, the significance of examining different forms of inter-role conflict and their implications for subjective well-being is evident. In this dissertation, I undertake four empirical studies that shed light on the interplay between different domains and how demands and pressures from multiple roles may collide.

Chapters 2 and 3 address the work-family interface, or interference between work and family. I conducted an experience-sampling study among 64 dual-earner couples; each individual respondent was asked to fill out two surveys a day for a period of up to two weeks. Taking a within-individual approach, this research aims to uncover the role of social support in the daily process of balancing work and family. Specifically, *to what extent does receiving social support buffer the daily work-family conflict process?* But also, *when are members of dual-earner couples more or less likely to provide social support to each other and which benefits (if any) are associated with providing social support to one's spouse?* In contrast to prior research that treated social support as stable, I find in my papers that social support is better understood as a resource that is high on some days and low on other days and, most importantly, the benefits of social support are highly dependent on its timely availability or provision. My results from Chapter 2 suggest that enacting a dual social support system can effectively prevent job demands from creating exhaustion and work-family conflict; that is, social support at work (from co-workers and supervisor) and at home (from the spouse) buffer in a dual fashion the daily process through which work interferes with family. Especially social support received from one's spouse is effective in protecting employees against the stressful aspects of work. Given the latter finding, it becomes imperative to examine what brings about spousal support. Shifting the focus to the provider of social support in Chapter 3, I

find that one's own experience of work-family conflict hinders the provision of spousal support. However, spouses are more likely to provide social support to each other when the other person is emotionally exhausted from work. Dual-earner couples also seem to establish a daily dynamic of reciprocal support giving. It demonstrates that the experiences of members of dual-earner couples are highly intertwined. Finally, I find that the benefits of social support are not exclusively reserved for the receiver; on days when employees provide support to their spouse, they experience higher relationship satisfaction and even enhanced life satisfaction. This finding suggests that support provision is worth examining as a strategy to enhance employee well-being.

Whereas work is one of the most common sources of stress for adults, school is a major life stressor for teenagers. Work and family may be dominant domains for a large part of our lives, yet the roles of family member and employee are not prominent social roles for young adults. Instead, roles pertaining to social life (being a friend) and study life (being a student) become salient – yet often conflicting – in late adolescence. Balancing the roles associated with these life domains is highly relevant for their personal development and growth. Therefore, Chapter 4 examines *what is the role of interference between the study and social domains in explaining student stress and well-being*. This form of inter-role conflict is to a large extent a motivational conflict, which sets it apart from work-family conflict. I conducted a cross-lagged survey study among 225 university entrants. Amongst others, my findings indicate that study-related stressors (e.g., taking exams) result in interference with the social domain. Moreover, when students experience that social activities interfere with their studying, this forms an impediment to their academic satisfaction and performance. The social domain, which poses a tempting set of action opportunities for students, can thus be considered an additional stressor for students above and beyond study-related stressors. Together, these findings suggest that inter-role conflict deserves more scholarly attention and may help us to better understand student stress and well-being.

In Chapter 5, the focus shifts from a higher education setting to an organizational setting in which employees are members of multiple teams. Multiple team membership is a new way of using teams that has become more prevalent in recent years. Oftentimes, employees are no longer part of just a single team. The emergence of this work design feature has not yet spurred a scholarly interest in examining the consequences of multiple team membership at the organizational, team, and individual level. My study examines individual implications of context switching in a team-based organizational context. Building on both the pessimistic

and optimistic views in the literature on multiple role enactment, I explore *to what extent is multiple team membership a demand or resource for employees*. In a sample of 169 employees working in an IT company, I find that as employees have to distribute their time more evenly across a number of teams, they perceive their work as more demanding; not in terms of the amount and pace of work (i.e., taskwork) but rather in terms of teamwork. That is, switching between team contexts adds to the employees' job demands by creating effortful team processes (e.g., communication and coordination) as well as stressful interpersonal interactions (i.e., conflict with team members), and this in turn leads to heightened job strain. Multiple team membership did not lead to a gain in job resources and even reduced the level of social support that employees received from their team members. These findings suggest that multiple team membership as a work design feature is a teamwork-related job demand and makes employees experience inter-role conflict in a team-based context.

Taken together, this dissertation provides a balanced examination of inter-role conflict. My findings contribute to research on work and family by providing specific insights into the role of social support and its effects across the work-family boundary. Moreover, I fill a gap in the literature by examining the role of inter-role conflict in students' lives, which has been largely overlooked in research on student stress. Finally, I contribute to organizational research by demonstrating that multiple team membership can be considered a form of inter-role conflict for employees in team-based organizational settings. All in all, I believe that this dissertation focuses on a topic that has societal relevance and adds to a stream of research that can provide impactful insights for lay people and practitioners alike by revealing the intricacies of juggling a multitude of roles.